The National
Future Farmer

Published by the Future Farmers of America

February-March, 1985

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The National
Future Farmer
Published by the Future Farmers of America

February-March, 1985
Volume 33 Number 3 ISSN 0027-9315

A Word With The Editor

1985 is here. We have reached the midpoint of this decade. It's hard to believe another year has come and gone, but time is moving and the world is changing, sometimes faster than we'd like.

Perhaps the daily routine of school, going out with friends, your church, or practicing with the team makes it difficult to notice how much things do change. But soon you will graduate, and your whole world will change:

Breaking New Ground

new friends, new surroundings. You will break new ground, carve your future.

Still, one thing will remain: change. Things will always change. It's a fact of life.

The FFA has changed, too. Things are happening today that would make our organization's forefathers heads spin. Take a glance at the headlines in this issue: new crop technologies pushing farmers' yields higher than ever (page 16); an article that explores the use of computers by FFA members at home and at school (page 38); and a sci-fi preview of ag careers 25 years from now (page 24).

Some changes may not always be for the best. "Closed Until Further Notice" (page 12) describes community and student reaction when a midwestern high school's vo-ag department is forced to close its doors for good.

But change, whether bad or good, should not be feared. With it comes opportunity—opportunities for leadership, personal development and personal growth. If you are ready to accept the changes which lie ahead, you can step confidently into the future.

Change is opportunity. Don't miss out on the opportunities in *your* future.

Michael Wilson *Wilson Carnes*

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Cover Description: *Cover Photo by Michael Wilson*
Anglia Webb, 18, tops off a tobacco plant to improve plant performance on her family's crop farm near Hahira, Georgia. She was the first girl elected president of her chapter. For more on Anglia, turn to page 36.

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Advertising Offices
The National FUTURE FARMER
P.O. Box 15160
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Ag Group 20, Inc.
400 N. Michigan Avenue
Chicago, IL 60611 312-644-5560

Ohio, Pennsylvania, Delaware, New Jersey
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P.O. Box 251
Old Greenwich, CT 06870 203-637-4397

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News in Brief

VO-AG TEACHER SHORTAGE is shrinking, according to the 1983 "National Study of the Supply and Demand for Teachers of Vocational Agriculture." Statistics show a two-year decline in the teacher shortage, making the shortage the smallest since the study began 19 years ago. However, the percentage of individuals placed in teaching positions dropped to 45.6 percent in 1983, the lowest placement rate of any year in the study.

FFA WEEK, February 16-23, is the perfect opportunity to show off FFA's new 1985 theme *Keep Agriculture #1—Support FFA and Vocational Agriculture* in your school and community. Your chapter received an FFA WEEK promotional kit in November. Extra kits can be ordered from Cameron Dubes, Director of Information, National FFA Center, P.O. Box 15160, Alexandria, Virginia, 22309.

THE NATIONAL FFA Foundation welcomes the Chessie Systems Railroad to their growing ranks of General Fund Sponsors. The Foundation also recognizes additional support for the FFA's International Program from The Veterinary Products Division of International Minerals & Chemical Corporation; and special project sponsors McDonald's Corporation, Merck Company Foundation, CIBA-GEIGY, and Dow Chemical USA. Sante Fe Industries is a new Collegiate Scholarship Sponsor, and the Federal Land Bank Association of Northeast Indiana is a new WCP scholarship sponsor.

ARE YOU INTERESTED in seeing how the 1984 Star Farmers and Star Agribusinessmen "made it to the top?" Order the *Stars Over America* multi-image audio-visual, shown at the 57th national convention and now available on film, courtesy of its sponsor, Levi Strauss & Company. You can get it on loan by writing to: Venard Films Ltd., Box 1332, Peoria, Illinois, 61654, or by calling 309-699-3911.

AGRICULTURE DAY, to be held March 20, 1985, is set aside as a time to explain and salute the achievements of the working men and women of agriculture in America, according to the Agricultural Council of America, sponsors of the annual celebration. You and your FFA chapter can help promote agriculture on this day also, but start planning soon. For more materials and information, write: National Agriculture Day, Suite 601, 1250 Eye Street, N.W., Washington, D.C. 20005.

ROBERT C. WHALEY, long-time advertising representative for *The National FUTURE FARMER*, has retired. Mr. Whaley has served as a publishers representative on the West Coast since *The National FUTURE FARMER* was established in 1952 and has been responsible for the sale of many of the advertisements which support this magazine. The Brassett Company, Los Angeles, CA, will take over Mr. Whaley's sales responsibilities.

In Pursuit of FFA Trivia

Here's your chance to quiz Greenhands and impress ag teachers! (Good luck—answers are on page 45.)

1. Who is the only Star Farmer of America to appear on the cover of *TIME* magazine?
2. What FFA chapter can be found in "The City of Brotherly Love?" What distinction does this chapter hold?
3. Who was the first female national officer, and what year did she serve?
4. What garment gave Eddie Wiederstein instant FFA fame?
5. Who was the FFA's first national president?
6. What is the greenhand pin made of?
7. How many taps of a gavel call a meeting to order?
8. How many kernels are there in the cross section ear of corn in an FFA emblem?

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The Mailbag

Vo-ag Teaches Basics

I am writing in response to the editor's column in the October-November issue dealing with the problem of the decline of students in vocational agriculture.

It is a sad thing that the country we live in cannot see how productive the vocational agriculture program is for members of FFA. In my opinion, vo-ag teaches about the sciences as if we were in the biology or physical science or chemistry courses. It also teaches how to keep accurate records, as would accounting class or any type of math class.

I believe the FFA should be treated as a regular course rather than just an elective. It teaches us the basics of day-to-day living. It also teaches us how to come out from under our shells and feel better about ourselves and others.

Your column has made an impression on me and I hope it has touched many people as it has touched me.

Stephen Hill
Webster, Texas

True Cost of Borrowing

With reference to an article in "Looking Ahead" in the December-January issue, there is a chart there showing the comparative interest rates between rural banks, PCAs and FmHA. In order to have a complete understanding by your readers of the meaning of this chart, I think you should be aware of the following adjustment that needs to be made in order to make this accurate.

Due to the 10 percent stock requirement of the Production Credit Association it is necessary to increase the rate to reflect the true cost of borrowing. In order to have $10,000 at his disposal, for example, a farmer would have to borrow $11,000. Using your 1983 rate interest on $11,000 at 11.28 percent would be $1,300.20. If you divide that by the $10,000 that borrower would actually get the use of, you get an interest rate of 13 percent which is considerably higher than the rate shown on your chart.

I realize that this information was taken from information published by the USDA, however, in order to make a fair comparison this adjustment must be made.

Boyd Waara
Vice President
First National Bank
in Philip, South Dakota

New Ideas

In your October-November issue I read two letters you received about *The National FUTURE FARMER* having too many articles on people with lots of land, money, a big farm or dairy, etc. Well, I totally disagree. I raise 1 steer, 2 or 3 pigs and I currently have 17 show rabbits, which I consider small projects.

I feel I gain much from the magazine because I get many ideas from big projects which I can use on my projects. Therefore, I hope to see you stick to what you've been doing.

Christi Fugler
Delhi, California

Proud of His Jacket

The National FUTURE FARMER magazine is the best magazine we receive in our home. It gets better with each issue.

I'm proud of my FFA jacket and wear it with pride to school and to FFA functions. In the latest issue in a leading story, a number of students are welding and spraying chemicals with their jackets on. I would never think of wearing my FFA jacket in these situations.

Kevin Andrews
Granton, Wisconsin

Send letters or notes with name, address and chapter to: MAILBAG, The National FUTURE FARMER, P.O. Box 15160, Alexandria, VA 22309. All letters are subject to editing.

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Looking Ahead

INTERNATIONAL HARVESTER Co. has sold its agricultural implement division to Tenneco Inc. for $430 million in cash and stock. Tenneco makes J I Case tractors. IH, a pioneer in the farm equipment industry, will now manufacture only medium and heavy trucks.

BUYING A FARM COMPUTER system? Roger Berry, agribusiness consultant and Indiana vo-ag instructor, says first-time buyers should consider the following beforehand:

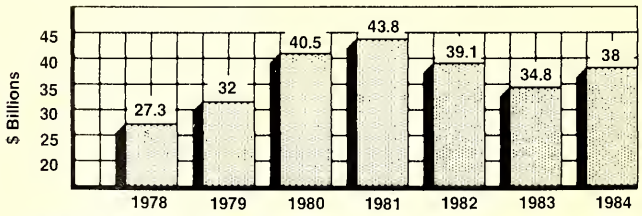
- Determine your farm needs present and future
- Investigate various software dealers and find out if their software fits your operation
- Investigate computer hardware dealers
- Have your complete system installed
- Practice making entries until you feel comfortable
- Keep your hand record keeping system for at least one year
- Make backup copies of all data.

SMALL FARMS INCREASE: farms with less than 50 acres increased 17 percent between 1978 and 1982, according to the 1982 Census of Agriculture. Their growth helped to keep the total farm loss under 1 percent, one of the smallest declines in recent decades. According to Texas Agricultural Extension Scientists, the increase in small farms is related to the increase in part-time farmers and more farmers who earn off-farm income. Farm operators selling less than $20,000 worth of farm commodities in 1982 represented 60 percent of the nation's 2.4 million farmers, but received only 6 percent of total farm cash receipts.

THE "LASER" HERBICIDE, an environmentally safe herbicide recently discovered by University of Illinois scientists, could revolutionize the way farmers use chemicals for weed-killing. According to *Doane's Agricultural Report*, the herbicide is highly selective, destroying certain broadleaf weeds without harming grass crops such as corn, sorghum, wheat, barley and oats. It's not available to producers yet, but several companies are negotiating for the rights to further test, develop and manufacture these herbicides. Stay tuned.

FERTILIZER COSTS can make up as much as 30 percent of today's corn crop input costs, or as much as $60 to $80 per acre. This year, make sure you get the most return from each fertilizer dollar. A good soil testing program, tissue testing and plant analysis will help. Also, growers should set yield goals and evaluate new fertilizer application technologies, such as "strip banding," which has shown yield increases as great as 7 to 10 bushels per acre compared to broadcast fertilizer application.

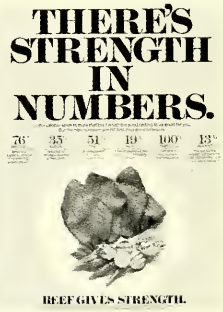
SOVIET AGREEMENT: The Soviet Union and United States have agreed to begin new scientific and technological agricultural activities, according to John Block, Secretary of Agriculture. The announcement was made in early December at Block's farm in Illinois during a visit by Soviet Minister of Agriculture Valentin Mesyats. Technical projects and scientific exchanges, which were carried out between the two countries during the 1970s but ceased in 1980, will begin again under the new agreement.



U.S. Agricultural exports in billions.

FARM EXPORTs will be up 9 percent this year, according to USDA'S *Farm Paper Letter*. Agricultural exports for this fiscal year are estimated at $38 billion, up 9 percent from the $34.8 billion last year. Wheat and corn accounted for 60 percent of the total increase in value. Ag imports are expected to reach $18 billion, resulting in a positive agricultural trade balance of $20 billion.

DOES BEEF GIVE STRENGTH? A consumer activist group has filed a complaint with the Federal Trade Commission to immediately halt the "Beef Gives Strength" advertising campaign sponsored by the Beef Industry Council (BIC) of the Meat Board and state beef councils. The "Center for Science in the Public Interest," a Washington-based



BIC ad campaign: "Deceptive and dangerous?"

consumer group, calls the campaign "deceptive and dangerous," and that "beef is more likely to give you a heart attack than to give you strength." Jay Wardell, vice president of the Meat Board's beef program, says the ads give an accurate picture of beef's nutritional value. "The BIC believes consumers deserve to hear the facts about beef and nutrition," he says, "and we intend to keep presenting those facts whenever we can."

DID YOU KNOW THAT no-till planters can be used with conventional tillage? University of Illinois extension engineer John Siemens says farmers should consider buying a no-till planter even if they're still using conventional methods to plant crops. Siemens says most no-till planters differ from standard equipment because they are heavier, have stronger frames and coulters for cutting through residue.

A TRACTOR ENGINE'S LIFE is directly related to the quality of the air it breathes, says Vaughn Allen, director of product support for International Harvester. Allen says operators should check the tractor's air induction system, starting with the air cleaner body. The primary filter element should be serviced or replaced if necessary, and the secondary element inspected for contamination.

JOHNNY RUTHERFORD: Husband, Father, Race Car Driver,
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"I grew up learning how to handle guns bird hunting with my dad in Kansas. Now my family enjoys hunting, too, what few chances we get. If we had more time, I'm sure it would be a family affair.

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"My son and I joined the NRA not only for the literature and programs it offers, but also because we like what it stands for. Being an NRA member is important for everyone who wants to ensure our freedoms to own, enjoy and compete with guns. I just can't fathom it any other way."

I'm the NRA.

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The Year In Review

1984 was an exciting year for FFA, as the following review indicates.

Larry Case Named New National Advisor

Dr. Larry Case, former director of agricultural education and state FFA advisor from Missouri, was named National FFA Advisor and Education Program Specialist in the U.S. Department of Education. Case, a former vo-ag instructor, replaced Byron Rawls, who retired in 1983.

FFA Foundation Sets New Fund-Raising Record

In spite of a poor farm economy, the National FFA Foundation announced at the end of 1984 it had raised $1.9 million for FFA members nationwide, indicating continuing support from agribusiness and others involved in agriculture. The FFA Foundation, now in its 41st year, has raised over $18 million over the years for incentive awards, leadership and citizenship activities, FFA films and international travel.

FFA Steps Into Computer World

Vocational agriculture and the FFA took a giant step into the world of computers in 1984 with its first "Computers in Agriculture" award winner, and the start of a nationwide computer network for vo-ag classrooms. The network provides vo-ag instructors and students with learning modules, current agriculture and FFA news, and electronic mail capabilities. The on-going award program tests FFA members' abilities to adapt SOE programs to computer technology and general computer management knowledge.

President Reagan Salutes FFA

Although hampered by election-year activities, President Reagan took time from his schedule to visit with over 100 FFA state officers in the White House Rose Garden. "By cultivating traditional values, leadership skills and patriotism, the Future Farmers of America ensure strength and vitality in our country," he told his audience.

Supply Service Director Named

Dennis C. Shafer, of Indianapolis, Indiana, assumed duties as director of the FFA Supply Service late in the year. Shafer, responsible for the organization and management of FFA merchandise, now oversees the Supply Service's annual gross sales of approximately $6 million.

Chapter Resource System Developed

The *Chapter Resource System*, developed by the National FFA Organization, was developed to help FFA chapters organize FFA information. It includes a set of filing labels and revolves around five basic elements: the FFA manual, FFA catalog, FFA Alumni, *The National Future Farmer* and the *Between Issues* newsletter. •••

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Cancelled Until Further Notice

Above, North Boone High School, Poplar Grove, Illinois—surrounded by cornfields but without an ag department.

Could This Happen To Your School's Vo-Ag Department?

A National Future Farmer Exclusive

"All in favor of dropping the vo-ag program, signify by raising your hand."

Could the day come when your local school board is voting yea or nay on your future in vocational agriculture?

It's happening at an alarming rate in high schools across the country, as local school boards look for ways to cut budgets due to poor local economies and dropping enrollment.

Recently the nays won out at North Boone Community High School in Poplar Grove, Illinois. Now, after two years without the program, the prospects seem dim for restoration.

The situation which led to dropping North Boone's program is not particularly complicated or unusual. Student numbers were down, school budgets were being cut, and some community members felt the program was no longer meeting local needs.

"The vote reflected a lack of student numbers and really the lack of dollars," says Dennis Ellingson, local school board president.

Debbie Coduto, a sophomore when the vote was taken and the program dropped, says it happened so quick that she and other vo-ag students really didn't believe it at first.

"We just thought it was some kind of rumor going around," she recalls. "I mean, it's sort of hard to believe that this school, sitting out in the middle of a cornfield, is dropping vo-ag and FFA."

Debbie, now a senior, will graduate this spring without the benefit of a full four-year vocational agriculture program. She plans to enter university studies next year that will take her toward her goal of becoming a veterinarian. She hopes the loss of those two years of ag classes will not affect her career.

"I would have much rather had a full four years, but I guess sometimes there are things you can't do anything about," says Debbie. "I know that it's likely to have some impact on how my application is viewed by college admissions."

FFA Charter Dropped

North Boone had FFA members at the National FFA Convention this year, but it could be the last. The chapter's charter is now expiring, and membership is quickly dwindling because no new members were admitted during the last two years.

Jerry Ulrich, a local dairy farmer, has served as volunteer advisor since the program was dropped. He now is leading a local effort to bring the program back.

"I was an FFA member, one of my daughters is a member now, and our community is probably more than 75 percent based on agricultural economy," says Ulrich. "I think that we're making a mistake if we don't have an ag program here."

The process of restoring vocational agriculture to North Boone has become somewhat of a crusade for Ulrich. He recently began collecting signatures for a petition sufficient enough to take to the school board to demonstrate community support. This, combined with pro-vo-ag board members and high school officials, could make a difference as early as the 1985-86 school year.

Board President Ellingson, who admits that his experience in FFA parliamentary procedure has been of extreme benefit to

The North Boone school board in session—a lack of interest, funds.

his seven years on the board, would like to see the program return. But he is sensitive to tight budgets and the feelings of the community.

"If we bring it back, we'll have to start slow to see how much interest there is," he says, explaining that numbers of students involved in a given program play a large part in funneling dollars to that program.

"I really don't know what the decision of the board might be on this issue when it comes up again," he says. "It really depends on the student interest and the availability of the money."

If the program *is* funded again, Ellingson knows, too, that he may have trouble finding a good teacher qualified to handle vo-ag.

"A small school district must compete with some of the larger ones, and schools with good teachers like to hang onto them," he says.

Many involved in the North Boone experience wonder why the program was dropped in the first place. Ulrich advises others who have programs to keep a vigilant eye on them, speaking out often to explain that the vo-ag program is more than farming and that 22 percent of America's population is involved in the production of food and fiber.

"Keep your vo-ag advisory council and FFA alumni active," he says. "Try to tell the story of the program in the community. Sometimes it's easier for those adults to see something like this coming before the instructor does." •••

"We just thought it was some kind of rumor going around," said Debbie Coduto, on her school's ag department closing.

What FFA Members Can Do

Bart Gosnell, 1982-83 president of the Paris, Illinois FFA Chapter, found out too late about cuts in his school's vo-ag program. And although the vo-ag program is still open, he does offer these suggestions for other FFA members:

—Make sure community members are aware of possible cuts. "Members need to get the word out by publishing in a newspaper what is happening," says Bart, now a sophomore at the University of Illinois. "FFA members can also pass around petitions asking for support and go door-to-door asking for support."

—Talk to school officials and board members. Bart suggests you explain to officials what your position is and what effect a cut might have to FFA and vo-ag in the community.

—Utilize FFA Alumni as support. Board members may feel more open to retaining a vo-ag program if they see adult support as well as students.

"My advice to the officers running the chapter is to be prepared to do all things as soon as the cuts are first being talked about by the school board," says Bart. "Just make sure that you and your chapter are prepared to stand up for its organization and keep everything that the organization has built itself up to be." •••

A Conflict of Interest:

TV Special Will Focus On Fewer Young People Entering Agriculture

THE situation at North Boone is not exclusive in America, but it will be used as an example of the problem of fewer young people entering agriculture in the upcoming National FFA TV Special entitled *Agriculture's Next Generation, A Conflict Of Interest.*

"No one person or group of people is at fault in a situation like this," says K. Elliott Nowels, producer of the program. "There's no one you point at and say 'there's the bad guy.' But by relating this story, we may be able to get community support for agriculture to increase, and also pull more young people into ag careers."

The television show, narrated by Eddie Albert, will air during the first week of March on 124 television stations across 37 states. Information about the day, time and channel in each of those areas was mailed to every FFA chapter in early February for promotion purposes.

Monsanto, DuPont, Yamaha and Ford Tractor are among the program's sponsors, which will also feature the FFA chapter of Chowchilla, California. There, tremendous community support has made for a highly successful vo-ag program, says Nowels.

"By showing the North Boone situation, we're pointing out that there is still a job to do in this country, to keep agricultural education strong," says Nowels. "And by showing the exciting things students are learning at Chowchilla, we can illustrate the opportunities in ag." •••

The Road To Success

It's filled with obstacles and challenges, but Ted Bull mixes the latest technology with hard work to achieve his goals

TED Bull shakes back his thatch of wavy hair as he adjusts the nozzles of a chemical sprayer. Today, as his hands move quickly over each valve, his mind moves just as quickly over ideas for a new crop marketing strategy—an important job here on the Bull's 1200-acre family farm near Valparaiso, Indiana.

"Today, farming is a 'work smarter, not harder' profession," says the 18-year-old, pulling himself up from the sprayer. Ted levels off at about 6 feet 2 inches, and it seems his hopes for the future are just as high. He's most comfortable here at the farm, for it is here where he plans to start farming full time someday. He's familiar with the obstacles—low prices, high interest rates, to name two. Yet he's confident his abilities will overcome those challenges.

Farm Marketing by Computer

As a junior, Ted enrolled in a newly-organized computer science course at Washington, Indiana, High School. "After having it for one semester, computers became my second love, next to farming," he says.

"I learned how easy they were to use and how they could speed up your transactions," Ted recalls. His computer teacher needed an aide, so instead of taking a study hall, Ted volunteered. "Oftentimes it was my duty to help

students and help grade tests," he says. "If there was free time and a free computer, I could write programs for myself or for the school. I wrote a program that averages grades and then prints them, one that figures class rank for the guidance counselor, and another program that quizzed German students on their German vocabulary."

Ted quickly found a way to apply his new-found love to farming. "Since I want to farm and marketing is a big thing in farming, I wrote a computer program where I input prices at the Chicago Board of Trade and the price I receive at the local elevator," explains Ted. "It figures the basis—the difference between what the farmer receives and what the Board of Trade gets.

"I kept track of the markets from August 1 through December 31, right through the harvest season this fall. I did it for corn, soybeans and wheat."

In addition, Ted wrote a program that calculates cash flow, and another that compares cash rent vs. ownership. He learned that "Cash flow in agriculture today does not allow you to have every luxury that you would want." But someday these programs will help Ted determine future trends. "We don't really hedge that much yet, but I feel confident I could in the future."

Ted has good reason to feel confident. He owns a John Deere 4020 tractor and a John Deere 3300 combine. He owns 40 acres from his grandfather's original farm, five cows and half-interest in the family's herd bull, which services 45 beef cows. With virtually no credit background, he's relied on help from his dad, Wayne, to obtain loans. But his SOE program has helped him learn from his own experiences.

"I work in my own fields and make my own decisions," Ted explains. "I use Dad's machinery and he uses mine. I work in his fields and he has to help me some. I'm farming about 96 acres on my own where I pay the rent to different landlords."

Such independence might make some fathers nervous. But Ted's dad welcomes his son's responsible attitude. "He (Dad) really wants me to take over the farm someday," Ted says.

Planting Season

The Bulls' use a corn-soybean planting rotation on their farm, with a few acres of continuous corn. "Most of our ground we spring chisel plow," notes Ted. "With soybeans we spring chisel, apply anhydrous ammonia with a field cultivator with coulter flow attachment, then use a spring-tooth field conditioner and it's ready to plant."

Wayne Bull says they've used the cold flow nitrogen application for three years now. "Last year we had a dry fall and we were glad the nitrogen was down in the root zone. We yielded 130 to 160 bushels for corn, and Ted averaged 122 bushels an acre."

Ted has complete control of the farm's herbicide program, which uses "early post-emergence or delayed pre-emergence spraying, depending on how you look at it," says Ted. "We're spraying corn when it's spiking (just coming up through the topsoil), and we're usually using Bicep, a combination herbicide which controls both broadleaves and grass.

"Timing is the key to getting good weed control. At this point the weeds are just starting to crack the surface, so you're almost assured you'll get control of the first set of weeds," he says.

Last year Ted sprayed all the herbicide needed on the farm. He was eager to learn since he had helped build parts of the new sprayer. "I'm a perfectionist in some ways, so dad knew I'd do a good job," he says. "I like people to notice our fields. It's personal pride. It's great that dad is giving me the opportunity to make all the decisions on some ground all by myself. He's giving me a chance to do things on my own, and he's there to encourage me when times are tough."

Those decisions are not always easy,

(Continued on Page 22)

Above, Ted Bull adjusts a sprayer nozzle, one of his duties as supervisor of the farm's herbicide program.

New Crop Technologies:

New developments in biotechnology may soon revolutionize crop farming

IT'S beyond your wildest dreams.

Imagine seed corn that will fight disease, resist drought, kill weeds—and yield 200 bu/acre as well.

That dream and others have been envisioned by ag researchers involved in *biotechnology*, which means, "Applying chemical or engineering techniques to biological systems to achieve improved production of food and fiber." Many experts believe its greatest impact will be in agriculture.

Consider the possibilities. A recent issue of *IH Farm Forum* describes a "wish list" for the future:

—Frost-fighting bacteria that protect crops from cold temperatures.

—Field crops that stand up to non-selective herbicides that once burned or killed them.

—Weed-killing plants that contain their own natural herbicides, cutting down on the need for chemicals or cultivation.

How High Can We Go?

By Michael Wilson

Biotechnology utilizes genetic engineering, transferring information from one life form to another. It has already been useful in animal production. Embryo sex selection, embryo transfer, vaccines and antibiotics for disease control, feed supplements, and the producion of hormones and growth regulators are just a few examples of new biological tools that could result in lower production costs and improved animal health.

No Longer Futuristic

Until the 1980s, biotechnology was more or less considered futuristic. It offered hazy hopes of achieving everything from new vaccines to square tomatoes. But dramatic results have captured the imagination of both researchers *and* the media.

Today, biotechnology research is a major priority for many universities and large ag chemical and pharmaceutical firms such as Monsanto, W.R. Grace, Eli Lilly and E.I. du Pont De Nemours & Co. These firms have made agreements for joint projects with small, start-up biotech firms, forming a new industry yet to reach its potential.

Winston Brill, director of Research and Development for Agracetus, a joint venture between W.R. Grace and Cetus Corp., says revolutionary discoveries are "probably only ten years in the future." Agracetus has on-going research in developing genetically-engineered corn, soybean and cotton plants. Brill hopes to engineer varieties that will be able to take on new traits. "We should be able to create plants that are 'tailor-made' for desirable characteristics," he says.

BRILL: "We are in a new industry. It's important to be looked upon by the public as being responsible."

For example, nitrogen fixation capabilities of legumes may be transferred to cereals; crop varieties could take on drought, salt and cold tolerant characteristics, or be altered to resist pesticides, plant pathogens, and herbicides. Annual crops could become perennials and the photosynthesis ability of plants might even be improved.

Dr. Dwight Tomes, of Pioneer Hi-Bred International's Department of Biotechnology Research, says with biotechnology, "Potentially, we can select plants for specific traits by growing their cells in the laboratory. We can screen for traits such as disease resistance, the ability to grow in salty soils, herbicide tolerance or nutritional quality while the plant is still at the cellular level."

Tomes says processes like this could save years of field breeding work necessary to incorporate certain characteristics into specific hybrids. "In the laboratory, we can test as many breeding materials in ten petri dishes as would require one acre of plants in the field."

From Microscope To Market

New discoveries, however useful to farmers, face an uphill climb before leaving the laboratory. How quickly ideas are adopted depends on profitability of the product or process, farmer perception of the risk involved, the capital investment and finally, consumer confi-

(Continued on Page 30)

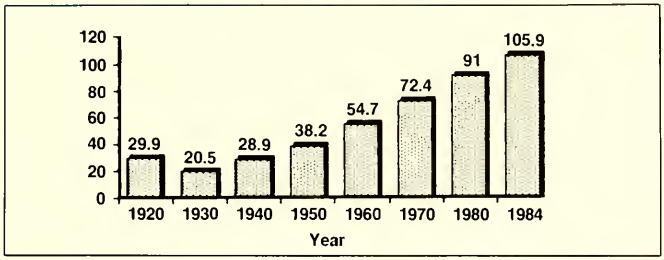
Genetics May Boost Corn Crop

Corn, long the United States' largest and most valuable crop, will surely be affected by new biotechnologies. But sources at Pioneer Hi-Bred International, a leading seed corn producer, say the new sciences will not replace traditional methods for plant breeding, but rather, will complement.

Corn yields, higher this year thanks to good weather and more acres planted, continue to follow an upward trend over the past 50 years. Part of this trend, according to Dr. Don Duvick, head of the plant breeding division at Pioneer, is that corn hybrids have continued to improve since their introduction years ago.

Duvick conducted a three-year study to determine how much of these steady yield gains are directly due to genetic improvements.

"We found that these improvements have boosted yields by more than 300 percent over the past 50 years, or an average of about one bushel per acre per year," Duvick reports. "Plant breeders have incorporated traits such as disease and insect resistance, drought tolerance and high population stress tolerance into the hybrids they've developed."



Above, U.S. Corn Yields in bushels per acre. Source: USDA

Pioneer has given their biotechnology department two specific goals—to transfer desired genes into elite corn germplasm by using "recombinant DNA technology;" and to use plant tissue culture methods for "in vitro," or test tube selection of improved corn lines and alfalfa cultivars.

Meanwhile, scientists over at Dekalb-Pfizer Genetics, also major seed corn producers, have given their research department similar goals: to develop a better understanding of traits that determine crop performance, and to develop more efficient techniques to speed genetic progress for those traits.

What does it all mean to the farmer—or perhaps more importantly, a future farmer or agribusinessman? For one thing, it should help growers get breeding results faster. In any case, the biggest benefit from genetic engineering in the near future will be greater understanding of how plants function: how the genetic code is translated within crop cells to generate a high-yielding crop.

That may be welcome news, especially if crop shortages replace crop surpluses someday. •••

The Story of The FFA Jacket

An FFA pioneer reveals how a simple idea grew into a worldwide symbol of FFA. Here's how it happened.

By Michael Wilson

WHEN you think of FFA, what's the first thing that comes to mind? The emblem? The creed?

Consider that moment when you first received your jacket. The cool of corduroy flowing against your fingertips. *Your name*, sewn neatly across the front. Your FFA chapter, neatly trimmed in bright yellow letters across the back.

Of all FFA symbols, the bright blue jacket is perhaps the most popular and recognizable of all. But it wasn't always that way—at least, not in the early days.

According to *The FFA At 50*, FFA delegates to the 1930 convention adopted an official dress uniform—a dark blue shirt, blue or white trousers, blue cap and yellow tie. It wasn't until three years later that delegates voted to drop the uniform and replace it with a jacket of blue corduroy.

Dr. Gus Lintner, then advisor of the Fredericktown, Ohio, FFA Chapter, was a pioneer in the development of FFA in the 1920s and 1930s. His leadership and imagination led to the creation of the FFA jacket.

"When I started teaching vocational agriculture at Fredericktown in 1925, there wasn't any FFA," says Dr. Lintner, 81, now retired in Westerville, Ohio. In 1933 Dr. Lintner wanted to send his chapter's FFA band to the national FFA convention. Money was hard to come by.

"Those were depression years," Dr. Lintner explains. "I talked to W.A. Ross, national FFA executive secretary, who said that the national convention was not going to have a band because it cost too much. Mr. Ross agreed to let the Fredericktown band play with one request: that we play the *Future Farmer March*."

> ***"I explained to the parents that these jackets would be suitable to wear to school. The parents were very happy about that."***

Dr. Lintner helped the school's music teacher train FFA members to play instruments. Homer Wood, the school's superintendent, liked the idea so much he provided instruments to those who could not afford them.

Meanwhile, Dr. Lintner worried about the cold midwest autumn. "Back in those days, the national convention was held in Kansas City in October," he says. "It can get cold on very short notice. My problem was, 'What am I going to do with these

Photos by Author

Dr. Gus Lintner displays one of the first FFA Jackets.

students if they get out to Kansas City and it's cold?"

"We had to have a uniform," he explains. "I wrestled with that for two or three weeks."

An Idea Is Born

"All of a sudden I was passing the local haberdashery (clothing) store in Fredericktown and I saw a corduroy jacket," says Dr. Lintner. He discovered that the maroon jacket with the bulldog embroidered on its back was a sample made by the Universal Uniform Company, from nearby Van Wert, Ohio, at a cost of only $5. He arranged for a meeting with a company agent. A plan was taking shape in Gus Lintner's mind.

"My idea was to take the FFA emblem (a cross-section of an ear of corn with no eagle) and put it on in place of the bulldog," he explains. He added the FFA chapter name and state below the emblem.

LINTNER: "It was fate that they needed a band in Kansas City. And it was just fate . . . that the jacket caught on . . ."

(Later, state names appeared above the emblem.)

The first jackets were made from a dark, navy blue. The company did not have "national blue" cordoroy in stock.

Dr. Lintner knew he was on to something big. He purchased 30 jackets and passed them out to FFA members. "I explained to the parents that these jackets would be suitable to wear to school," he explains. "The parents were very happy about that."

The jackets were popular. FFA members wore them daily. "Many of the jackets just physically wore out from use," says Lintner. "I even wore mine."

Still Popular

Through the years, the colorful blue jacket has become a national symbol of FFA. Many political and agricultural leaders have exchanged friendly greetings with FFA members only after recognizing the familiar jacket. Former President Jimmy Carter and Secretary of Agriculture John Block both wore the FFA blue jacket.

Why did the jacket become so popular? Dr. Lintner says the jacket had tremendous versatility. "And you have to have something the students enjoy wearing in order to make it popular," he adds.

Although times have changed, the jacket has remained fairly constant. There have been few changes since the 1933 design. "The original jackets had snaps on them because zippers weren't very popular in those days," Dr. Lintner says, "they also had a wider rib corduroy."

Today, FFA members can have jackets to fit different styles and needs: sweetheart jackets (white corduroy), windbreakers, sweatshirts, oxford jackets and FFA ranch coats. Jackets are also available for advisors. Dr. Lintner says a "variety of costumes" does not weaken the impact of the official jacket.

Freshly outfitted in their new uniforms, the FFA band traveled to Kansas City for the 1933 Convention. They slept on dormitory cots in the Baltimore Hotel and played songs every evening and afternoon. The band led the street parade and the Royal Livestock Show. The uniforms caught the attention of official FFA delegates, who voted to replace the blue T-shirt and tie official dress in favor of the jacket.

It took some time before the jacket "caught on" nationwide. But the appearance of the Utah State FFA Band, dressed in crisp blue jackets and white trousers at the 1934 convention gave a big boost to jacket sales.

The jacket was produced at a beginning cost of about $7 apiece. A few years later, the eagle was added to the FFA emblem.

By then, Dr. Lintner says, "The National FFA Association had made a contract with Universal to mass produce these for the benefit of everybody."

Today, almost every FFA jacket is made by the original manufacturer, and a small number are lettered at the National FFA Center, in Alexandra, Virginia. All jackets are purchased through the FFA Supply Service.

It was fate that they needed a band in Kansas City," he explains. "And it was just fate that we needed a uniform, that the jacket caught on and is recognized."

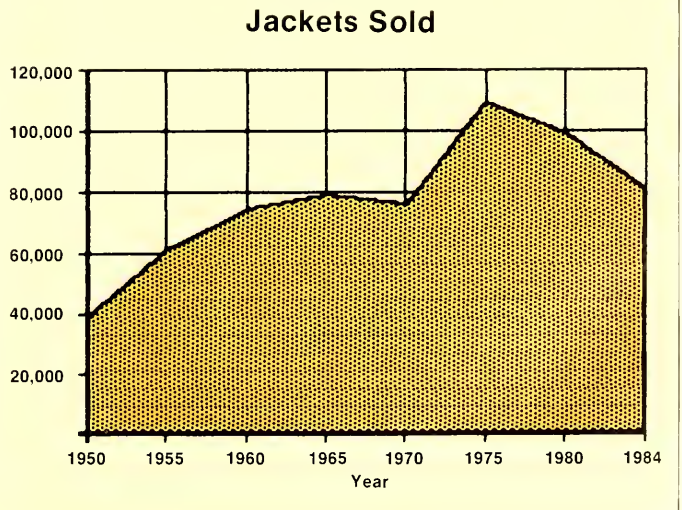
Although he's best known for creating the FFA jacket, Dr. Lintner would rather be remembered first, last and always as an educator. His career has spanned many years of service to FFA and vocational agriculture. In 1982 almost 50 years after the first band played in Kansas City he received the National Hall of Achievement "FFA Achievers" award for leadership in vocational education. A world traveler, Dr. Lintner was a foreign aid officer and established a vocational agriculture program in Iraq during his eight years in the middle east. His favorite years, though, were spent in Fredericktown.

"I can truthfully say the 16 years I put in at Fredericktown were probably the happiest years of my life," Dr. Lintner says. "There were so many opportunities. If there was anything new or innovative in vocational agriculture or the Future Farmers of America, Fredericktown was right up there in the front."

Dr. Lintner gets a great feeling of pride when he sees FFA members in those blue corduroy jackets he helped create. He runs into folks with jackets worldwide. "I went on a whale watching trip once and there was a man wearing an FFA jacket on board," he recalls. "I pointed to his jacket and asked, 'Do you know who started all this?' He said 'no.' I said, 'You're looking at him.'

"He could hardly believe it." •••

This graph shows the number of FFA jackets sold through the years. To date, 3.3 million FFA jackets have been purchased from the FFA Supply Service.



The Joys Of Almonds

It's a sweet business, growing those tiny nuts for snacks and candy bars

By Michael Wilson

It may not be your run-of-the-mill farm enterprise, says almond lover Kevin Schoonhoven, 19, of Chowchilla, California. But his 26-acre almond crop does share one common thread with other farm crops: it must have good marketing to be profitable.

"Most people think almonds are only used in candy bars or as a snack food," says Kevin, who last year earned his state's Fruit and/or Vegetable proficiency award. "But almonds are marketed in almost 2,000 different products. The more uses we can find for almonds, the better the demand."

Kevin raises the nut crop in partnership with his dad and brothers on a 450-acre farm near Chowchilla. He began his FFA project as a high school sophomore four years ago, growing six acres of almonds. He added another 20 acres by his junior year, but chose not to increase his senior year, because of his duties as a state vice president. Kevin is now enrolled at University of California at Davis, majoring in agricultural economics. Today he's back at the farm, testing yet another product resulting from good marketing: almond butter.

"It's just like peanut butter, except made with almonds," Kevin says. "I'm curious how it will be accepted by the public."

"Almonds are marketed in almost 2,000 different products."

Kevin says many new products are being tested at the California Almond Growers Exchange, located nearby. "It is probably the largest cooperative for almond growers in the world," says Kevin. "Their marketing division is constantly trying to find different ways to use almonds."

Unlike most crops which have to be planted each year, almond orchards will produce for many years. "Usually a tree will take six years before it really starts to produce," explains Kevin. "In 10 or 12 years it should hit full production."

Successful growers need good management practices in four areas: spraying, fertilization, irrigation and tillage, says Kevin. It all begins each spring with the arrival of several hives full of swarming bees. "Without pollination we wouldn't have a crop," says Kevin.

Tillage between trees provides better irrigation and reduces weeds, making it easier for the the harvest crew. The Schoonhovens maintain a rigid spraying program, checking disease like Brown Rot, Pink Bud or Twig Bores. Kevin says they would probably lose over half the crop if it weren't for spraying.

When it's time to harvest, special machines clamp themselves to each trunk and shake the trees, causing tons of almonds to fall to the ground. A sweeper pushes the nuts into windrows and a harvester swallows them up, eliminating leaves and dirt as it moves.

The crop is then taken to a hulling machine which removes the outer crust and shell, leaving only the meat of the nut. Hardshell varieties yield less meat, but the bigger softshell almond can fall prey to navel orange worm, which digs through its shell to destroy the nut. Later, trees are pruned by a crew armed with chainsaws, handsaws and pruning shears.

The best part of growing almonds, says Kevin, is that it does not need as much labor as most crops, and the opportunities for market growth look good. As he puts it: "It's a new industry, with many different possibilities for different products. It's bound to grow." •••

Kevin, right, is optimistic about a growing market for his almonds.

A LOT OF THE TRAINING THAT HELPED HIM BECOME A CHAMPION HAD NOTHING TO DO WITH DIVING.

Russ Rebmann is an Army ROTC cadet at the University of Southern California. He's also a Pacific 10 Conference diving champion.

"What made me enroll in Army ROTC? I started thinking about my future. I can't dive the rest of my life. And to be a champ in business, you've got to be a leader and a manager.

"ROTC has given me a real taste of what it's like to be a leader, to be the man in charge. Handling that kind of responsibility is preparing me to be a leader in life.

"At first, I thought that ROTC training would get in the way of my other activities on campus. But it's helped me excel in all areas of school. The concentration, self-confidence and discipline I've developed have helped me with my athletic and other extracurricular activities, as well as my studies.

"I can use my ROTC training wherever I go, whatever I do."

If you're thinking about your future, think about enrolling in Army ROTC. The training you'll receive can give you the edge you need . . . no matter what the competition.

For more information, write: Army ROTC, Dept. KC, P.O. Box 9000, Clifton, N.J. 07015.

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Road To Success

(Continued from Page 15)

but Ted uses his best judgement. He's got to take in such factors as weather and soil erosion. "This is the kind of soil that needs to be managed carefully," says Wayne Bull, crumbling a handful of soil through his fingers. "It's poorly drained, and the land doesn't allow water to run through it. We use surface drainage."

Between farming and computing, Ted has found time to serve as chapter president, attend the state FFA convention and work on community service projects in the area.

"Sometimes it's hard to find time to farm *and* be involved in FFA," he says, "but I learned a lot of leadership skills by holding offices in FFA and being on committees."

"I think it's great that dad is giving me the opportunity to make all the decisions on some ground by myself. He's giving me a chance to do things on my own."

Ted says vo-ag class helped him appreciate farm management, and he hasn't ruled out more education after high school. It wasn't easy to schedule four years of vocational agriculture course work around four years of college-prep classes, but after working with the school's guidance counselor, he was able to take four years of vo-ag.

"I think the farm and vo-ag class reinforce each other. In ag class we do a lot of paper work, learning to run a farm, planning feed rations, which reinforced what I already knew," notes Ted.

Management, Determination

Ted has heard the experts warn how tough it is for young people to start farming. His response: better management, more determination.

"Other businesses are just as hard to get going," he says. "If you manage it right you should be able to stick with it and hold out. I think you have to learn how to manage, not get so greedy that you have to be the biggest farmer in the county—just take what you can handle and do a good job with it."

Indeed, Ted *is* doing a good job on his road to success, making his own decisions and gaining responsibility. It's only a matter of time before he'll be doing a good job with much, much more. •••

Ted dons safety glasses and protective gloves before unhooking anhydrous ammonia tanks.

A TRADITION OF EXCELLENCE

Since 1947, well over 100,000 vo-ag students have earned the highest degree of agricultural proficiency—the DEKALB Agricultural Accomplishment Award.

This year, more than 3,500 new winners will be named. High schools all across the country will honor the senior student who displays the highest degree of proficiency in agriculture, scholastic achievement and leadership.

Because DEKALB Award winners are leaders—representing the best—we consider our sponsorship of this prestigious award an investment in the future.

DEKALB has been investing in the future since our beginning in 1912. Research, resulting in new and improved products and services, is the key to a healthy future. DEKALB's rich heritage forms the foundation for a genetic research program that is unequaled by any other company. We're developing quality products and services for the world's farmers.

We believe in excellence. That's why we sponsor the DEKALB Award.

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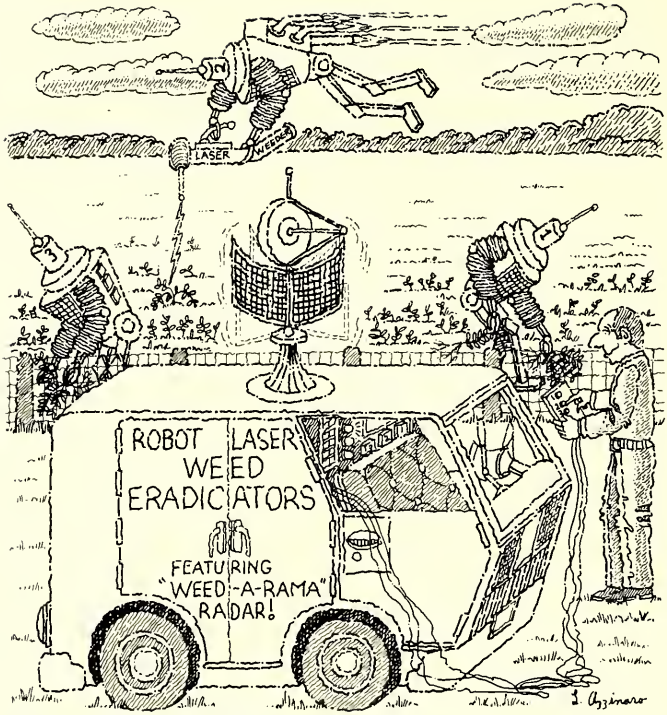

Future Ag Careers:

What Will They Be Like?

It's a good bet you've already considered what you'll be doing with your life five years from now. But what about in ten years?

How about *25* years from now?

Predicting the future, like the weather, is risky business. But it's probable that agricultural career areas will change drastically in the next 25 years. Today, one in five jobs in America can be traced to the farm. In 25 years some of those job areas will be gone—and some will explode with growth.

One thing seems clear: future ag careers will involve more highly-trained people with specialized, high-tech skills. "Agriculture today requires the highest technology in the world," says Dr. Sylvan Wittwer, director of Michigan State University's Agricultural Experiment Station. "And its needs for the future will only increase."

Research, Automation, Sensor Electronics

Wittwer says these areas will become more important in agriculture. "Crops and livestock can't tell producers what's wrong with them," he says, "but sensors are beginning to help us find out. There has already been a great deal of research in this area, especially in the area of field and crop sensors."

Robert Lanphier, III, president of DICKEY-john Corporation, says "Agriculture is by far the most high-tech industry in the world." His company is heavily involved in electronic monitoring devices used in agriculture. He says careers in research and the application of research are unlimited, "because there will always be different needs for new ideas on the farm."

That includes reducing farm costs, customized farm management, integrated pest management and preserving natural resources. "There will be a need for totally new careers in water control and water management. To control pests, we'll need people in satellite detection, or localizing problem areas. None of this is being done today, but they are exciting careers for tomorrow."

Computer Specialists

Also expected to expand are businesses involved in farm computers. Although a poor farm economy has caused some farmers to look at computers with a skeptical eye, most agree on its usefulness as a management tool. According to USDA, only about 5 percent of all farmers now own a computer, but in two years it could be as much as 40 percent. Hence, a change in the economy may bring rapid expansion to an already growing industry.

As a result, it may someday become commonplace to get a college degree in agricultural computing. College graduates in the year 2010 might begin careers as producers or marketers of farm computer hardware or software; or as operators of a telecommunication system which electronically sends information to producers. More computer consultants will be needed to help guide producers to appropriate equipment, as more farmers look to computers to help solve management problems.

Biotechnology

This new industry uses genetic engineering to increase plant or animal production. Recent encouraging results, such as development of a bovine growth hormone, have caused a flurry of new research activity. Many new career areas may open up as a result, such as specialty crop consultants or embryo transfer specialists (for more on biotechnology, see page 16.)

Changes In Traditional Ag Careers

As of today, 23 million people work in jobs related to agriculture. Of those, only 14 percent are directly involved in farming, and the number will likely continue to drop. "There will be less need for people in production agriculture, but much more need for specialists in related industries," says Wittwer.

Lanphier says new careers will spring from emerging farm technology. Marketing, servicing and distribution of farm products will change, "especially when big farms get bigger, produce more and employ more people," he says.

"Take a look at the farm equipment dealer of today and compare him to 25 years ago," says Lanphier. "He's changed a great deal. Now take that change and multiply it ten times and that's how different a farm equipment dealer will have to be in 25 years. These people will *have* to adopt to new methods."

And what about the farmer? "The ultimate ag career of the future will be farming itself," notes Lanphier, "because the farmer will have to comprehend all of the new methodologies and new information systems which will be available in 25 years.

"There will be many changes," he adds, "But change implies opportunities. And opportunities mean careers." •••

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A Business That Grew From FFA

"...Mighty things from small beginnings grow."—John Dryden

WALT Griffiths, of Lebanon, Oregon, believes in that familiar saying. His entire career grew from a small beginning in FFA.

Walt built his first greenhouse as an FFA member in the Lebanon Chapter. It was a small polyethylene structure, only 18 by 25 feet. For lack of any other space, he built it behind his parents' house near Lebanon. He was 16 at the time.

The geraniums and fuchsias Walt planted in that first greenhouse did better than he expected. They helped Walt launch a career in the nursery business that has now spanned ten years and boasts a total of eight fully-operational greenhouses and a ninth under construction.

From the beginning, it was evident Walt was destined to grow—not only plants, but expanding the business. It was only a matter of months before he needed more space for his project. With the help of FFA advisor Norm Clampe, a second greenhouse was put into operation, this time on a piece of land owned by the Lebanon High School.

"Norm and I learned the nursery business together," says Walt. "We had our good times and bad, but we learned."

Soon business was booming—or blooming, in this case—and Walt had to expand the operation even more. He moved the whole project back to the land behind his parents' house. With the new greenhouse business officially launched, Walt began developing another interest: involvement in FFA.

"The FFA gave me an early start in meeting people through speaking engagements, service and other FFA functions," Walt recalls. He was elected to both local and state FFA offices, achieved the state and American Farmer degrees, and the state horticulture proficiency award. He also served on the Oregon State Board of Agriculture as an advisor representing the FFA.

Walt Griffiths at his nursery business in Lebanon, Oregon.

By the time Walt graduated from high school he had four greenhouses supporting his nursery business and store behind his parents' home. He also farmed 100 leased acres with equipment he paid for himself.

"It was really quite an experience," he says, "farming the land and having the nursery business, too."

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By Cliff Kneale

Walt Griffiths' business began blooming ten years ago—and it's kept him busy ever since.

Walt wanted to go to college, but ran into a problem many FFA members face: what would he do with his business? Walt decided to hire a Lebanon woman to mind the store. He attended classes at Oregon State University, a campus close to home. He drove the 30 miles to check on his greenhouses and nursery at least three times each week. But he managed to graduate with degrees in horticulture and general agriculture.

Photos by Author

Walt's ninth greenhouse is under construction.

A Popular Business

"At the time, we had no intention of expanding, but the business kept growing through popularity," he says. He has built a new greenhouse each year since the project began. He uses his own special mix of potting soil to ensure the very best quality, and now offers 70 varieties of house plants, root stock for fruit trees, thousands of perennials, 2,000 trees, herbs and annuals.

Today, Walt runs his business with the help of his mother, father and wife. His mother minds the new store recently opened in Lebanon, while Walt makes deliveries. During the busy times, Walt hires three people to help prepare products for sale. They transplant hundreds to thousands of plants daily.

"When possible, I try to hire FFA members to work for me," says Walt. "I still work on FFA projects and do some advising for FFA. After all, that's where I got my start."

Walt's business has become one of the most popular in Oregon's Willamette Valley, an achievement Walt says comes from good business practices and commitment to educating people about plants, gardening and products. "When you enjoy what you do, it shows and helps others to enjoy their plants more," he says.

Walt sponsors a radio program providing gardening information to a "growing" audience of Oregon gardeners, who, naturally, think of him when making purchases. He also lectures through the Extension Service.

Walt is confident his business will see continued growth and expansion in the future. His outlook stems from a positive attitude. "I suppose I'm an optimist in a pessimistic time, but the attitude pays in customers returning and developing an ongoing interest in agriculture," he says.

After all, mighty things *can* grow from small beginnings. Walt Griffiths proved it. •••

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Photos by Author

Philippe, left, inspects a bin full of grapes with host father Bob Wollersheim.

Life In America

Each year hundreds of American farm families open their doors to foreign agricultural students. The experience is once-in-a-lifetime—for both student and family.

By Molly Mitchell-Wilson

WHEN Americans think of France, they often think of Paris, the Eiffel Tower, or perhaps croissants. When Philippe Coquard thinks of France, he thinks of home: of mom and dad, and his family's business.

Philippe, a French exchange student to America, is a long way from home. He's one of two hundred foreign students currently living and working on American farms and agribusinesses through the FFA's Work Experience Abroad (WEA) Inbound program, an activity that lets foreign students experience America—and a chance for American farm families to experience another culture.

Philippe lives with the Robert Wollersheim family in Prairie Du Sac, Wisconsin. Several years ago Mr. Wollersheim gave up the academic life of a college professor for his first love, vitaculture. Since then he's carved a name for himself in the wine industry, carefully nursing a 20-acre vineyard in southern Wisconsin. "Wollersheim Winery" is one of only a handful in the state.

By living and working alongside Bob Wollersheim and other family members, Philippe gets a good dose of American culture. He says the Wisconsin vineyard looks similar to French vineyards, but marketing and testing procedures are foreign to him. He's getting the same "hands on" experience many FFA members receive.

PHILIPPE: "At first, I did not know what to think of Americans."

"It's a different way of thinking," he explains. "In France, we study production and marketing just a little. Then the merchants will do the actual selling. At home I have taken one year of marketing, but rarely use it. Here, I get the chance to practice it everyday."

Mr. Wollersheim says, "In addition to packing boxes and talking with customers, Philippe visits with distributors and store owners. He finds out what's selling and what's new in the business. He's learned how totally different the market spread is between the United States and Europe."

While Philippe explores new marketing methods, Mr. Wollersheim benefits from his French student's insight. Philippe's French homeland, the Beaujolais, is a rich wine region. His family owns 50 acres of vineyards used for the famous wine.

"We could go down the street and find someone to work for minimum wage," Mr. Wollersheim says, "but this business is unique and often misunderstood in the United States. Getting someone to work with us who has specific knowledge and appreciation of the process is more helpful to us."

Philippe says the Wollersheims "treat me like a family member." Here he dines with Mr. & Mrs. Wollersheim and Imre Szado, left, another student from Hungary.

Learning English

It hasn't always been easy, adjusting to American life. Philippe tries his best. When he talks, his words spill out in a thick French accent. Sometimes his grammar isn't perfect, but it doesn't seem to matter.

"Everyone knows I am from another country when I open my mouth to speak," he grins. "My English has gotten better, because I must speak it everyday. I have begun to think in English, dream in English, and sometimes people laugh at me when I talk to myself in English.

(Continued on Page 34)

SMART WORK PAYS . . .

ASK DONNA LEE

Hard work and thorough records, plus the kind of dedication common to all FFA members, helped Donna Lee of Newberry, Florida earn the 1984 National FFA Horse Proficiency Award . . . she knows smart work pays.

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Crop Technologies

(Continued from Page 17)

Dwight Tomes uses tissue culture techniques to identify traits useful to plant breeders, potentially saving years of field work.

dence in quality and safety of the new product.

Regulations—or the lack of them—have encouraged some biotech firms and frustrated others. "The concern is that there has been a rush for regulations without addressing the concerns," says Brill. "People have yet to define what the dangers are, and that doesn't make sense."

Brill says the chance of "creating organisms that cause problems" are at the root of regulations. Yet, "No scientist that I know could or would (through genetic engineering) be able to change an organism which is normally safe into one that could cause problems," he says.

In the past, the National Institutes of Health (NIH) has been the only agency researchers could look to for guidance—yet, it is not a regulatory agency. Now, the Environmental Protection Agency (EPA), Food and Drug Administration and USDA will likely play an important role in such regulation.

As a result, some experiments are held up in limbo. Brill says Agracetus has waited two years to conduct an outdoor field-test of their genetically-engineered tobacco plants. Although the experiments have been okayed by NIH and USDA, the company is moving cautiously. "We are in a new industry," he says. "It's important to be looked upon by the public as being responsible."

Richard J. Mahoney, president of Monsanto, a multi-faceted company which produces ag chemicals, says regulation is important, "to reassure the public that this work is being conducted safely, to provide the specific rules for testing and commercial introduction of products, and to prevent unnecessary delays that could erode our nation's lead in this technology."

Monsanto recently dedicated its new Life Sciences Research Center, built at a cost of well over $150 million. The Center houses 250 laboratories, 26 greenhouses and 123 plant growth chambers which can duplicate almost any climate and soil condition in the world. Six hundred research personnel work on products for agriculture, animal nutrition and human health care. The staff is expected to double by the end of 1987.

Monsanto's annual research budget has doubled over the last five years, to nearly $400 million in 1984. Not without results, either: the company's scientists achieved a breakthrough in 1983 by inserting a new genetic trait into a plant cell, then regenerating plants and subsequent generations of plants that retained the new trait.

"That work takes us a step closer to genetically engineering crop plants for improved productivity," Mahoney says. "It should lead us toward the ability to introduce into crops such traits as disease resistance, insect resistance, and more tolerance to drought or high temperature.

"The potential benefits of this technology are astounding," he adds.

A Potential Backfire

Ironically, some biotech discoveries could mean problems for agriculture. Robert Kalter, professor of agricultural economics at Cornell University, isn't sure biotech is necessarily today's wonder drug for a slumping ag economy. "The benefits to society are obviously improvements in efficiency and product quality," he says. "A rapid acceleration in productivity, on the other hand, may result in a downward pressure on consumer prices and farm incomes, fewer employment opportunities in agriculture, and in fewer farms."

Kalter says only a few new commercial products or processes evolving from biotechnology have been proven, and none are in widespread use. Yet, he agrees that the prospects for the future are boundless.

"Biotechnology presents us with almost unlimited research opportunities that could ultimately impact...the agricultural sector and the well being of consumers," he says. "It will greatly alter the speed and direction of technological change in agriculture.

"The possible innovations are limited only by the human imagination." •••

Biotechnology may introduce insect and disease resistance traits to corn hybrids of the future.

"Our second man-to-man talk was about seed corn."

"My Dad is real good about giving me the straight facts on a lot of things, and especially about seed corn.

"He's been farming for years and if there's one thing he takes seriously, it's the hybrids he plants. He's learned from experience what works best on the land we farm and over the years it's been Pioneer® brand hybrids.

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Photos by Author

Advisor Keith Walker, left, with Daniel Corrigan, Lee Hogedorn, Chris Curran and Lisa Smith, inspect part of the chapter's marigold crop, which will be sold as a money-making project.

Finding Ag In The City

This urban vo-ag program teaches FFA members about agriculture and agribusiness—from the ground up.

By John Dutcher

AGRICULTURE does exist in Wilmington, Delaware, but you have to know where to find it. Unlike most *typical* agricultural communities, cows don't stand on hillsides, living billboards reminding passers-by that agriculture plays a big part in the area's economy.

Instead, you have to look under the city's smokestacks, explore its suburbs and dig through its shopping centers to unearth the scope and importance of agriculture in this city of 70,000.

It is in this city that Keith Walker, of T. McKean High School, faces a unique challenge: teaching vo-ag students about agriculture—how to recognize and become a part of it.

"If I look at the program from the students' standpoint, at least we *introduce* them to food and fiber production in the U.S.," says Mr. Walker. "If students enroll in the program, they have an opportunity to not be as ignorant about agriculture as the rest of the community."

With a school enrollment made up of 20 percent inner-city and 80 percent suburban students, most would be surprised to learn that Mr. Walker has to turn away between 60 to 100 students from his vocational *agriculture* program each year. Those who get in are carefully screened to make sure they really do have an interest in the program. T. McKean is a one-teacher vo-ag department. Mr. Walker can only handle about 135 faces each day.

When students enter the program, teaching agriculture starts "from scratch," according to Mr. Walker. "Most have no idea what farmers are or what they do," he says. "But they have an appreciation for the life sciences and thus, can develop an appreciation for agriculture.

"The toughest part of my job is teaching students how vast and important agriculture is in this country," says Mr. Walker. "They need to realize what a big part agriculture plays."

HERMAN: "We support each other. If someone wins something, we cheer. If they don't, we encourage them to try again."

Once students learn that agriculture includes things like greenhouses, landscape services, pet stores and veterinarians, they can see how agriculture fits into Wilmington, according to Mr. Walker. After they understand the scope of agriculture, Mr. Walker teaches his students how to find their place in it.

"I try to teach the students three things," he says. "They need to learn how to think, be flexible about their career choices and how to develop their own job if they can't find one that meets their career goals."

This year, Mr. Walker's program includes veterinary assistance, small animal care, landscape management, horticulture and independent study. But the program varies from year to year. "I try to keep the program pretty much optional. I just teach what the students want and need," he says.

Since his students have such diverse interests, Mr. Walker uses the independent study course to guide students through coursework. When students have an interest in a certain subject like genetics, he'll let them develop a special Supervised Occupational Experience (SOE) program at school and give them reading assignments in the area.

"It's not like other classes," says Chris Curran, 17. "If you want to try something, no one tells you you can't." Chris and other students seem to appreciate the individualized instruction they get in vo-ag. Not only do students get individualized instruction, they get to give it as well, when Mr. Walker puts some of the teaching assignments in the hands of his students.

Despite his large number of students, Mr. Walker says he doesn't feel overloaded. "When you put part of the teaching responsibility on some of the students, it's not as much work as you might

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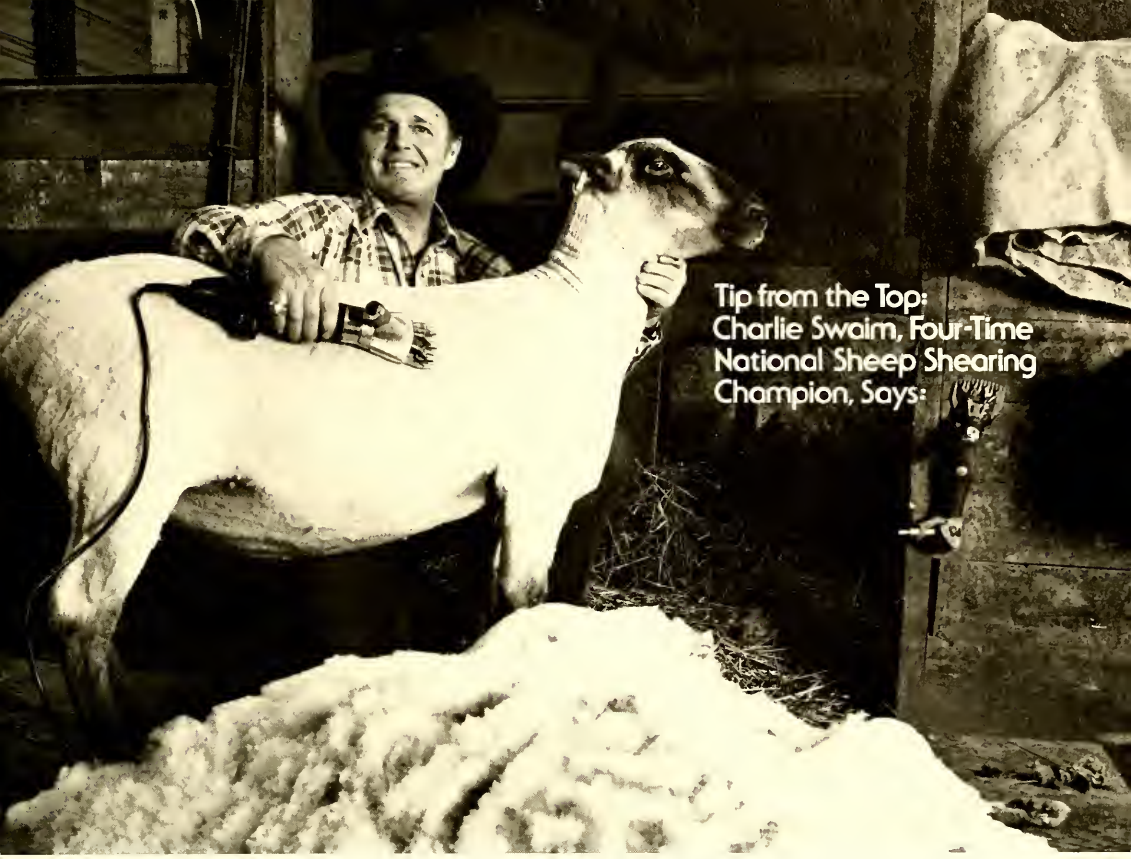

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Ag In City

(Continued from Page 32)

think," he says.

The program also relies heavily on FFA as a learning tool, according to Mr. Walker. Since the only livestock the chapter has access to are Gretchen the cat and Chu the dog (animals Mr. Walker uses for demonstrations in his veterinary assistance and small animal care classes) obviously, there's no way they can train for the state livestock judging contest. "We use the contests as learning tools," says Mr. Walker. "That's what they're for. We don't go to win, we go to learn."

But when it comes to leadership skills, the chapter makes its presence felt throughout the state. Besides a healthy respect from other Delaware schools for their public speaking and parliamentary procedure abilities, the chapter also has three members serving as state FFA officers. The students admit to being ultra-competitive at leadership activities. They say it's because they want to. "We support each other," says Mary Herman, 20, currently serving as state sentinel. "If someone wins something, we cheer. If they don't, we encourage them to try again."

The chapter also works hard to share their understanding of agriculture with the community. Besides strong participation in Food For America, the chapter conducts community workshops each year. Last year the chapter held a workshop on Homopathic Medicine—a German-originated way of curing ailments of dogs and cats without surgery or drugs through the use of herbs—for the community.

This year the chapter is working with the Society for the Prevention of Cruelty to Animals (SPCA) to conduct programs for fourth and fifth graders, demonstrating the proper way to take care of pets. A workshop on organic gardening is also planned.

"We try to include other local groups and societies in our programs," says Mr. Walker. "It gives the members a chance to learn to work with other people and develop professional networks."

Although many students can't have SOE programs at home, FFA projects are still the mainstay of the program. For those students who can't find work in the area's agribusinesses, space in the chapter's greenhouse is provided for them to grow what they please. The rest of the greenhouse is used to grow crops for the chapter to sell as money-making projects.

In addition to the greenhouse, the chapter maintains the school's landscape and several other landscape jobs in the area.

Mr. Walker admits it would be nice to have another vo-ag instructor at T. McKean. But until then, everyone seems happy with the current setup of teacher teaching students; students teaching students; and students teaching the community.

Because when it comes to learning about agriculture, it doesn't matter if you're from the farm *or* the city. •••

Students at the T. McKean vo-ag department are responsible for maintaining their school's landscape, one of several chapter projects.

America

(Continued from Page 28)

This is very unusual for a Frenchman."

The Wollersheims have welcomed foreign students for the past four years. They're accustomed to language differences.

"I've learned as a host, that the students arrive with a better knowledge of English than I have of their mother tongue," reports Mr. Wollersheim. "I respect them for that."

"If you say something one way and the student doesn't understand, you must know how to rephrase it, using different words, and keep in mind that they are not deaf, nor stupid."

Philippe thinks it's "great!" to be in America. He explains, " The Americans have a totally different way of thinking, and it's good for me to see this difference.

"At first I didn't know what to think of Americans," he adds. "I thought they were unfriendly because when Bob would take me somewhere, the people we would see would always say hello to Bob. They would say nothing to me. I thought, this is not normal. In France we extend our greetings to everyone, and don't discriminate because we don't know them. But once Bob would introduce me, they would be very friendly."

Several of his friends had visited the United States; they told him "how things would be, how the Americans acted," says Philippe. "But I saw nothing like they saw it. I found that I must see the United States for myself, and make my own observations, get my own impressions."

Philippe, like other inbound WEA students, feels lucky. The Wollersheims have made him one of the family.

"They treat me like a family member," he says. "I am not a guest, and that's one thing that makes my experiences so valuable."

Philippe is not the only person who gains from the exchange experience. The entire Wollersheim family has learned much from their foreign friends.

"Our children have the opportunity to observe people from other lands," says Mr. Wollersheim. "They realize that things are done differently in other parts of the world. They have a better understanding of the world without leaving home."

Placements are arranged through the National FFA Center, in Alexandria, Virginia. According to the FFA International Department, families interested in hosting international students should have an agricultural operation and be able to show foreign students American culture and work habits.

"You must also be open minded," adds Mr. Wollersheim. "It's your job to realize that there is more than one type of lifestyle, more than one way of thinking in today's world. The key to a successful exchange of ideas is communication, adaption and flexibility."

As for Philippe, his "life in America" has been a real eye-opener. Asked if he would host an exchange student if he had the opportunity, Philippe responds in a most typical American fashion:

"For sure!" •••

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The Best Person For The Job

Anglia Webb was elected president at one of the country's largest FFA chapters, earning the respect of ag teachers and the friendship of fellow classmates.

SINCE the day she found out her dad earned the American Farmer degree back in 1963, Anglia Webb has wanted to be involved in FFA. Now at age 18, she seems destined to follow in her father's footsteps.

Anglia (pronounced An-je-la) was born and raised on a tobacco farm near Hahira, Georgia. She grew into farm work naturally, often helping her dad Larry, mother Willene and younger brother Larry, Jr., harvest tobacco on the 175-acre farm. The Webbs rent an additional 150 acres and grow soybeans and corn along with tobacco.

"Dad told me about going to the national convention in Kansas City," Anglia remembers. "He's even got his FFA jacket still hanging in the closet."

To Anglia, it seemed only natural she become active in FFA. But Mr. Webb worried she might not enjoy the same opportunities as he did. "Girls in FFA were unheard of in 1963," he recalls. Fortunately for Anglia, things have changed for the better.

"When Anglia was in my ninth grade class she never spoke a word," says Joe Lineberger, head vo-ag instructor at Lowndes County High School, Valdosta, Georgia. "Of course, she was the only girl in the class, too. That may have contributed to the situation."

With some encouragement from her FFA advisors, Anglia soon opened up. She began a grape vineyard, sheep project and a fish and wildlife project, which later won a district award. But she faced the biggest challenge of all last year when she ran for chapter president—no small undertaking at Lowndes County, the third largest chapter in the nation. With over 400 members (15 competing for the same office), the election night meeting was bigger than some states' FFA conventions.

"Anglia is our first female president," says Tim Gibson, horticulture instructor at Lowndes County. "That's not a change in tradition—they just elected the best person for the job."

As it turned out, Anglia did such a good job she was also elected one of eight

Anglia Webb, right, was encouraged to join FFA by her dad, Larry Webb.

By Michael Wilson

statewide FFA vice presidents last year. Still, those first weeks as chapter president were not easy.

"Some of the boys resented taking orders from a girl at first," recalls Mr. Gibson. "But they learned real quick that they're equal. If a girl is going to do the work, she's going to get the credit."

Award-winning Chapter

With so many FFA members to lead, Anglia's job was challenging. Both Anglia and her advisors agree, the chapter is stronger because many members are involved in different projects. "One disadvantage is that it's hard to have a cookout for 400 students and it's hard to find a place to meet at the school," says Mr. Gibson. "But you never run short of people who want to get involved. There's always something for everyone."

GIBSON: "Some of the boys resented taking orders from a girl at first. But they learned real quick that they were equal."

Mr. Lineberger agrees. "We've been able to work a lot of the urban students into the program, alongside the production agriculture students. We're doing it by sticking with one part of the FFA motto: 'Learning By Doing.' "

The philosophy has paid off in awards and recognition to the chapter. In 1983 Lowndes County earned a bronze award for their Building Our American Communities (BOAC) project, a $10,000 relandscaping of the high school. "Our students did the entire project from the ground up, drawing up blueprints and doing all the work," says Mr. Gibson. "The more involved the students get in hands-on work, they more they enjoy it and the more they learn."

Another advantage: students *not* enrolled in vo-ag can see for themselves how much fun vo-ag can be. "They see these FFA members and they want to get into that ag class," reports Mr. Lineberger. "They see what FFA is offering—that's where we have the edge on other vocational groups."

Like so many Lowndes County students, Anglia's FFA experience has given her an edge—for the future. She's not sure she'll match her father's achievement, but the leadership skills gained from FFA have been worth her effort.

"I've gained a lot of confidence since I've had the chance to speak at banquets and the state convention," she says. She's currently finishing her first year as an agricultural education major at Abraham Baldwin Agricultural College in Tifton, Georgia. She's leaning towards a career as a vo-ag instructor, but Anglia knows there are many opportunities yet to explore.

"I believe there's a demand for women in agriculture today," she says confidently. "I'm not afraid to try anything." •••

Anglia and vo-ag instructors Tim Gibson and Joe Lineberger inspect her vineyard.

A Closer Look at **Tobacco**

By Melissa K. Whitt

ANGLIA Webb, like many FFA members who grow tobacco, knows how much work it takes to produce a good crop. It's not easy, but with a little luck and good weather, a good tobacco crop can be a big winner at harvesttime.

Tobacco is grown primarily throughout the southeastern part of the United States. To have a good, strong crop, it's necessary to plant by late May when the rain can give soil the moistness needed for the plant to take root.

The tobacco must be checked often as it grows. To prevent seed production and make the plant grow better, some stalks must be "topped and suckered" (see cover photo).

Tobacco harvest is unique among all crops. It means hours of work cutting, hanging and grading. "Tobacco is a labor-intense crop," says Anglia. "We use a mechanical harvester, but it still takes ten pairs of hands to get it harvested and hung in the barn."

Flue-cured tobacco is stripped from the stalk in the field. It is hung in a barn where a heat source warms the tobacco and dries it quickly. Burley tobacco is harvested on the stalk and "air-cured" before its leaves are stripped.

Each stalk is divided into five different sections called grades. A grade is the color and location of the tobacco leaves on the stalk. "Lugs" and long red grades are located on the lower half of the plant where leaves are larger. These leaves are used primarily to make chewing tobacco and strong brands of cigarettes. Short red and tip grades are found on the upper half of the stalk and are used mostly to make cigars. Bright grades sit directly in the middle of the plant and are the mildest, used to make finer brands of cigarettes.

After this process is completed, some tobaccos are bailed in large wooden boxes. When filled to capacity, the average box weighs from 85 to 100 pounds. Finally, after many months of back-breaking work, the tobacco is ready for market. •••

FFA ONLINE

Computers: Breaking Classroom Traditions

Computers in vo-ag classrooms are changing the way teachers teach. Are they also changing the things FFA members learn?

(Editor's note: This is the first in a series of articles describing different ways computers are used by FFA members and vo-ag instructors.)

THE Computer Age. Its growth is staggering. Consider the following:

According to *Market Data Retrieval,* four years ago only 21 percent of all U.S. high schools owned one or more computers for students to use. By the end of 1983 it had jumped to 86 percent. By the end of 1985, analysts predict nearly all high schools will have available at least one microcomputer.

Instructor Steve Zibell, from Oregon, Wisconsin, uses his school's computer laboratory for vo-ag instruction.

Vo-ag classrooms have played a big part in that growth. State FFA officials say well over half of all high school vo-ag departments own or have access to a microcomputer. They predict at least 80 percent of all vo-ag students will have access by the end of the 1985 school year.

This surge is not without its growing pains. According to Dwight Horkheimer, FFA computer specialist, changing technology is outpacing ideas about how to put computers and software to practical use. We've learned to build computers better than we've learned how to use them.

"Before an ag teacher tries to fill his or her classroom with computers, one important question needs to be raised: what do we plan to use the computer for?" says Mr. Horkheimer. Unfortunately, very little research has been done on how computers should be used in vo-ag classrooms. Even so, ag teachers have put them to use, one way or another.

One problem both students and teachers face is *availability*—in most vo-ag departments, there simply are not enough computers to go around. "It's like teaching woodworking with only one table saw," says Horkheimer, a former vo-ag instructor. "It can be done, but it takes additional management of available resources."

Ron Koci, vo-ag instructor from Middleton, Wisconsin, has only one computer in his department. But he's solved the problem by using sign-up charts, where students "check out" the computer per hour, learning as free time permits.

Dick Aide, from the Waupun, Wisconsin, Chapter, uses computer projects for two or more students—they share work *and* the computer experience. Other ag teachers have arranged to let vo-ag students have access time in their school's computer lab, where ten or more computers may be available.

What Do Students Learn?

An FFA survey shows that programming and computer literacy activities take up a majority of computer instruction. Quizzes, practice and tests on agricultural subjects placed second. Other areas of computer instruction in the ag classroom include wordprocessing, spreadsheets, data base collection, record keeping and some FFA computer-related activities.

Traditionally, production agriculture has been the standard subject taught in most vo-ag classrooms. But, as Horkheimer points out, agriculture is changing. "I don't think we need to stress production agriculture as much today as we used to," he says. "If there is one major gap or weakness in high school vo-ag curriculum, it's in the area of ag marketing and farm business management."

A glance at the facts proves his theory. According to a recent report in the *Wall Street Journal*, over 22 percent of all Americans are employed in some area of agriculture. But only 2 percent are actually employed in production agriculture, or farming. And only 12 percent of all U.S. farmers account for 63 percent of farm sales.

Using computers in the classroom could go a long way to bridge that gap, Horkheimer says.

"Teaching students about ag marketing demands keeping abreast of current prices, trends and information," he adds. "After teaching high school vo-ag for eight years, I can remember going to the textbook shelves only to find old and outdated materials. Computer technology can solve this problem by providing current marketing and management."

It may take some time before "traditional" vo-ag teachers will move from a total production ag curriculum to include marketing and management. "It's different for each community," Horkheimer says. "But we may find that it's the students that will lead these changes. The current drop in vo-ag enrollment may be a sign that we're not meeting their needs for the future." ●●●

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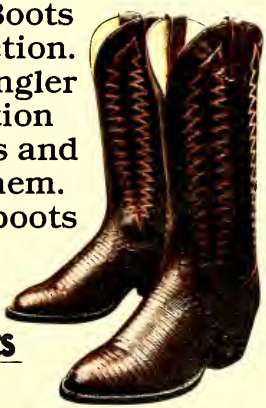

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News, Notes, and Nonsense from Everywhere

Chapter Scoop

by Jack Pitzer

During November the *Evergreen*, WA, Chapter extracted 238 pounds of honey to sell to the community.

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East Butler, NE, is selling seafood as a fund raiser project.

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Cheery seasonal newletter from *Omro*, WI, Chapter with front page on red paper and inside cover a list of Christmas wishes from various members.

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Kerwin Bell, the Florida "Gators" star freshman quarterback who led the team to their first-ever S.E.C. championship, was an active member of the *Lafayette*, FL, FFA Chapter according to his high school teammate and fellow FFA member **Andy Hurst**.

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To attract donors for the *Green Bay Preble*, WI, FFA Blood Clinic, drawings were held for cash prizes.

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East De Pere, WI, FFA helped other clubs in their school build a haunted house for the March of Dimes.

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Exeter Area FFA in New Hampshire is working with the state of New Hampshire on the state national wild flower project by digging liliac roots for transfer to state picnic areas, toll plazas and roadside areas. They're also planting wild flowers and experimental grasses on a new divided highway.

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Pat Garrett, reporter for *Cascade*, OR, sent a short item that the chapter picked 79 boxes of mistletoe for a local wholesaler and made $400.

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To boost attendance at chapter meetings, *Ceres*, CA, Chapter has started giving prizes purchased from the FFA Supply Service. So far it is working.

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Skills tested in the *Cumberland Valley*, PA, FFA fall olympics were bale stacking, bale throwing, egg toss, milk chug, wheelbarrow race, tire race, tug-o-war and three-legged race.

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Clear Creek, TX, FFA raised money selling sausage at the school homecoming carnival. *Eminence*, IN, Chapter made and sold carmel corn.

The theme of the *Easton-Fresno*, CA, homecoming float was country stars. Members built a stage on the trailer and dressed up like country stars Johnny Paycheck, Tanya Tucker, the Mandrell Sisters and Silva and Lone Ranger.

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Every month *Creighton*, NE, Chapter collects newspapers and aluminum cans to sell and at the same time help keep their community looking better.

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Officers of the *DeWitt Central*, IA, Chapter journeyed to Louisa Muscatine High School for the first meeting of a new FFA chapter there. The DeWitt officers performed the opening ceremonies, Greenhand initiation and officer installation.

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As part of their safety program, *Brainerd*, MN, FFA provided a Halloween patrol—keeping an eye out to stop vandalism and offering to help children in trouble.

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When the *Stanton*, NE, FFA challenged the FHA to a volleyball game in October, it drew such a crowd that they made $100 and donated it to the March of Dimes.

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Dorman, SC, organizes a chainsaw safety program for the community. They made posters to promote it.

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Kids Day in *Vicksburg*, MI, is a one-day street carnival. The FFA chapter organized a petting zoo and gave 800 kids a pony ride.

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Elmwood, IL, sold 34 steers at their annual steer auction for an average price of 79 cents per pound.

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FFA at *Zillah*, WA, earns money with a community rummage sale.

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Reporter **Jeff Shirley** for *Brantley*, AL, FFA sends word that the chapter's state fair exhibit on tractor safety won them first place.

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Menifee County, KY, FFA made the Greenhand and Chapter Farmer initiation evening a social one by hosting a pig roast for the parents and guests.

After their SOEP tour, parents and members of *Garretson*, SD, teamed up for a horseshoe tourney. Prizes went to the best team.

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Members who passed the hunter safety field program in *Indian River*, FL, FFA got to go on a field trip to shoot shotguns, rifles, muzzleloaders and practice archery. It was presented by the Florida Game and Fresh Water Commission and the local sheriff's department.

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Hollister, CA, FFA operates a Christmas boutique. This year they sold footstools, sawhorses, nail boxes and plants.

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Fairbanks, OH, members practiced interviewing skills and then were given evaluations of their resumes and interview techniques by judges.

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Charles Town Junior High School FFA in WV made 90 gallons of apple butter in one week. It took a big fire and lots of members to work the project which will support the chapter's banquet and delegates to the state convention.

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Carroll County, KY, FFA purchased 2,000 trees and gave them to people in the community as a service project.

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Clarkston, WA, members attended Land Grant Days at Washington University and learned about courses available. Tours of various departments of the college were available plus members could compete in contests like bale bucking.

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Goddard, NM, Chapter in Roswell, assisted in the construction and consumption of an 85-foot banana split at the annual county dairy day.

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It didn't take long for the members of the *Kofa*, AZ, Chapter to catch on that they were bidding against each other at the county fair steer auction.

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Travis Wallingford won the local *Tollesboro*, KY, FFA Creed contest. It was judged by principal John O'Cull and last year's winner **Bryan Caskey**.

Rod Earley, Greencastle, Indiana
1984 National Home and Farmstead Improvement Winner

Left: *Rod used creativity and practicality when landscaping his family's farmyard.*

Right: *This car port was constructed by Rod and decorated with antiques that he's collected.*

Below: *Rod and his FFA Advisor Brian Harmon from North Putnam High School look over 'before and after' pictures of his projects. Rod refinished the chairs and table in this sitting area.*

ACCOMPLISHMENT
THROUGH EXERCISING AMBITION

With quiet determination, Rod Earley initiated and carried out an ambitious plan to renovate his family's home and farmstead. His activities were inspired, in part, by the FFA Home and Farmstead Improvement Program.

Resourcefully, Rod investigated and used many techniques to improve his family's farm. Outside, he landscaped the home, not only for beauty, but to provide insulation and windbreaks. He built a rock garden, constructed a car port, patio and designed a backyard tea house. Inside, he refinished many pieces of wood furniture.

Rod's other accomplishments were renovating the farm pond, constructing fences and designing a sheep shed. He made needed repairs and reconstructed several outbuildings. In addition, Rod is repairing and remodeling a 100-year-old house built by his great-great grandparents.

Rod carries the belief that failure is impossible and uses hard work, determination and ambition to accomplish his goals. He credits the FFA for providing a firm foundation of support and guidance for him to develop his interests.

That's why The Upjohn Company is proud to be the sponsor of the FFA Home and Farmstead Improvement Program. The people at Upjohn think it's important to support the ambition of young people like Rod and his fellow FFAers in making the American farm a better place on which to work and live.

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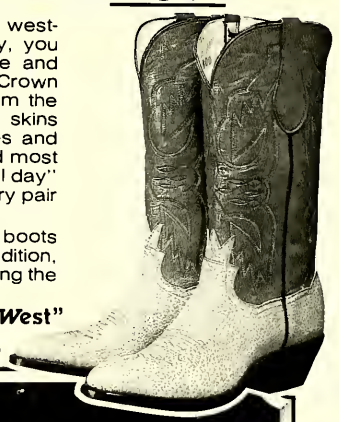

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College Costs: Help!

Here's a laundry list of grants, scholarships and other aids that will make college easier on your pocketbook.

By Paris Permenter

You already know how difficult it is to get into college. Now here comes another jolt: the latest figures show that the average cost of one year in a public university is $1,041. If you're planning to attend a private school, the cost jumps to $4,900. Expect to add about $2,000 for room and board.

Fortunately, there are several kinds of financial aid available to any vo-ag student who plans to attend college—including two-year programs.

First step: determine how much aid you can qualify for. Before the financial aid administrator of your prospective college can work out an "aid package," fill out the *Financial Aid Form* (FAF), which can be obtained from your high school guidance counselor or by writing the College Scholarship Service, P.O. Box 84, Washington, D.C. 20044.

The results of the FAF will be mailed to colleges you list. At this point, the financial aid administrator can work out an "aid package."

Grants

Grants are amounts of money awarded to students on the basis of need, not scholarship. Money is *not* paid back.

One of the most common grants is the *Pell Grant*, sometimes known by its old name, the *Basic Educational Opportunity Grant*. The average Pell Grant is for $800, with nearly two million recipients in any school year. Pell grants range between $200 to $1,800 each.

Apply for the grant at no extra cost when you return your Financial Aid Form. Simply check the box saying you would like your information to be sent to the Pell Grant program.

Another federal grant is the Supplemental Education Opportunity Grant (SEOG). It provides up to $2,000 a year.

Scholarships

These are awarded on the basis of good academic performance. If you have a high grade point average, you may be able to get a scholarship offered by the university.

Another opportunity unique to FFA members is the *National FFA College and Vocational/Technical School Scholarship Program*, operated through the National FFA Foundation. Interested FFA members must be high school

Shop and Compare

COLLEGE costs do vary, so it's wise to shop around before enrolling. Picking a college close to home can be a big money-saver, since costs for in-state students are much lower than out-of-state rates.

Some students save money by beginning their education at a junior or community college, then transferring to a university before their junior year. The degree still comes from a prestigious university, yet costs much less.

As you compare college costs, don't forget room and board. •••

For a look at typical college costs, here's a breakdown of charges at three land grant agricultural colleges:

	Iowa State Ames, Iowa	Ohio State Columbus, Ohio	Texas A&M College Station, Texas
Tuition:			
In state	$ 816	$ 1,140	$ 489
Out of state	1,881	2,520	1,569
Room	579	1,299	712
Board	804	1,017	1,004
Total for one year in state)	2,199	3,456	2,205
Total for four years (in state)	8,796	13,824	8,820

Source: American Council on Education

seniors or out-of-school FFA members preparing to enroll in their first year of education beyond high school except where educational scholarships are available on the basis of accomplishments in on-going FFA activities.

To apply, simply ask your vo-ag teacher for an application. You can order them through the FFA Supply Service Catalog.

Loans

Unlike grants and scholarships, loans must be repaid. The National Direct Student Loan (NDSL) and the Guaranteed Student Loan (GSL) Program are both low-interest loans which are paid back after graduation.

The NDSL will allow you to borrow $3,000 if you are in your first two years of study, or $6,000 if you are completing your bachelor's degree. You begin repayment six months after graduation or leaving college, with a low interest rate of 5 percent. Another plus—you don't have to complete repayment for ten years!

The GSL program loans up to $2,500 per year. Interest rates are 9 percent per year, far less than standard interest rates. For applications to these loan programs, see your counselor or financial aid officer.

Work Programs

Here's where your SOE program or FFA leadership experiences can really pay off.

Work programs provide on-campus, and occasionally, off-campus jobs for students. Switchboard, library and clerical positions are typical examples. You can also find many farm-related jobs in the agricultural colleges of universities.

The pay is often lower than regular jobs, but the hours are flexible around your class schedule. Applications for work programs come directly from the college's financial aid office.

Cooperative Education

These programs allow you to alternate work and formal classes, an excellent alternative for agriculture students. Your work experience is a planned and supervised part of your degree plan, just like regular classes—but you do earn a salary. Over 1,000 colleges now offer these programs. •••

Leupold's new Compact 4X RF Special on Ruger's 77/22 rimfire, new Compact 2x7 in the foreground.

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Raisin Meeting

The Kingsburg, CA, FFA Chapter attended a presentation in October by Vice President of the United States George Bush. Mr. Bush discussed new and improved relations involving the raisin industry.

Kingsburg is located in the San Joaquin Valley in California and is a strong grape and fresh fruit growing region.

Mr. Bush's remarks were of extra importance to us because of the effect the raisin economy has in our community. Also in attendance was Governor George Deukmejan.

Members in the picture with Vice President Bush are, left to right, Janee Pinheiro, vice president; Henrietta Garcia, reporter; Lisa Souza, president; Tammy Barnes; and Randy Griffin. *(Henrietta Garcia, Reporter)* •••

Chinatown

When ten delegates from the Peoples' Republic of China visited Boise City, Oklahoma, FFA chapter members welcomed them as they departed from their airplanes. The group from China visited to see how crops and livestock are raised in the United States. They had previously attended the World's Fair and the Oklahoma State Fair.

Alan Imler, the chapter president, presented Madame Fu with flowers and welcomed them to Boise City. Madame Fu is the Chinese director of international trade. From the airport we went to eat lunch at the Methodist Church. Before eating, we gave thanks with the help of their interpreter.

After an American barbeque lunch, we toured the Boise City Feed Yard and showed our guests how we use horses to separate the cattle. Then we went to the feed mill and observed how we mix feed and then feed it to the cattle out of the truck.

The Chinese seemed impressed with the "cropdusters" or spray planes we watched make a few rounds over a field. We demonstrated an irrigation system and well and told them how much water is used on each acre.

Mike Barnes, chapter vice president, has a strong swine operation, so we took the Chinese to Mike's Berkshire farm and explained to them the importance of a good farrowing house and showed them some feeder pigs and the breeding stock.

We then walked over to one of the Barnes' combines and explained how they are operated. Madame Fu wanted her picture taken on one of the Barnes' tractors.

From the combine, we went to a local co-op, toured the elevator and the manager explained the storage and selling of grain.

We saw the Chinese back to the airport and wished them a safe trip. Our chapter was really pleased to have had such an opportunity. •••

This Contest Team Was Really Cooking

This fall the Yorktown, Texas, FFA Chapter entered the annual Yorktown Chili and Bean Cookoff. Those that made up the team were all new at this for none of them had ever cooked chili or beans before.

The team of Harlen Merks, Larry Vasbinder, Donny Chalk and Todd Riemenschneider were all rookies. They placed sixth in chili and second in beans. It just goes to show you FFA can be productive in the fields as well as in the kitchen. *(Marvin Dworaczyk)* •••

Spooky Chapter Event

Members of the Cass County Voc-Tec Chapter in Harrisonville, Missouri, gathered at the vocational school on a Saturday night in October for a hayride to the home of Jenny Langton via the truck provided by Eric Armintrout. At Jenny's home their large barn was decorated like a haunted house complete with Frankenstein, rattling chains and ghosts. After that, the group moved on to the Dianne Weddington's farm for a weiner roast with all the trimmings. *(Doug Roth, Reporter)* •••

Combination Ceremonies

The Stroud, Oklahoma, FFA Chapter hosted the Lincoln County Greenhand and Chapter Farmer initiation ceremonies and sponsored the county FFA Creed contest in November at the high school auditorium in Stroud.

Over 200 FFA members and guests from eight chapters participated in the event, making it perhaps the largest installation of degree candidates in the state. Those chapters in attendance were: Agra, Carney, Chandler, Davenport, Meeker, Prague, Stroud and Wellston.

Wellston FFA conducted the Greenhand ceremonies and the Meeker Chapter handled the chores for the Chapter Farmer ceremonies. FFA members claiming awards in the creed contest were: first, Jerusha Lowe, Prague; second, Eric Capron, Prague; and third, Monte Sill, Stroud. Plaques were sponsored by the Blue Star Cheese Company.

State President Cindy Blair, state Reporter Lisa Oliver and central district Vice President Therron Nichols attended. The Stroud FFA Booster Club provided refreshments following the meeting. *(Steve McDaniel, Reporter)* •••

Pests Go On Computers

FFA members from across Oklahoma are cooperating with the Oklahoma

Department of Agriculture in a federal-state venture to develop a data base for a pest forecasting network.

The program, set up by the United States Department of Agriculture, is being conducted in 45 states, and Oklahoma is the only one working with FFA

Kevin Holley demonstrates pest surveying to the FFA members. The crop survey can provide an educational experience for members, as well as important data information for the state and federal departments of agriculture.

members, said Kevin Holley, inspector for the plant industry division of the state department of agriculture.

By participating in the program, FFA members will become familiar with modern pest management principles and theories of population monitoring and dynamics.

(Continued on Page 46)

FFA TRIVIA CONTEST ANSWERS (from page 4)

1. In 1955, Star Farmer Joe Moore, of Liberty, Tennessee, appeared on the October 24, 1955 cover of *TIME* magazine.
2. The W.B. Saul FFA Chapter, located in Philadelphia, Pennsylvania. The chapter is the largest in the nation, with over 600 FFA members.
3. Julie Smiley, of Mount Vernon, Washington, was elected western region vice president in 1976-77.
4. In 1964 Eddie Wiederstein, of Audubon, Iowa, purchased the one-millionth FFA jacket produced by the National FFA Supply Service.
5. Leslie Applegate, from Freehold, New Jersey, served as first national president for 1928-29.
6. Bronze
7. Two
8. Twenty.

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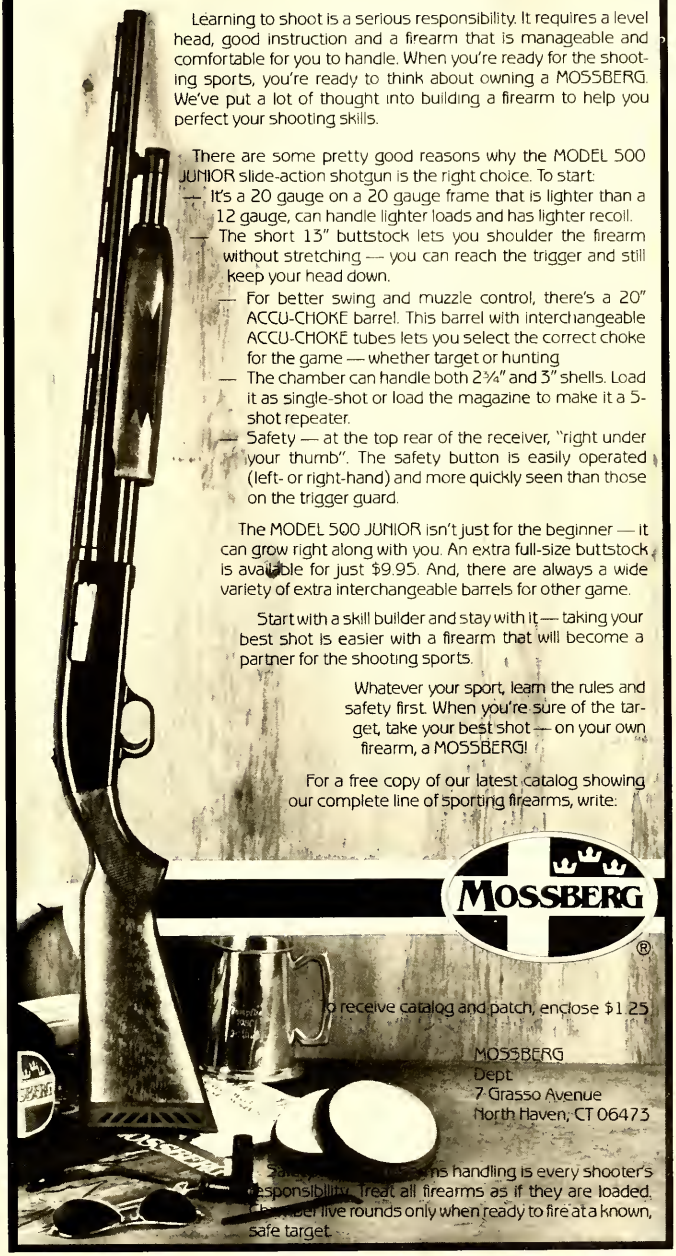

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FFA in Action

(Pick up ACTION from Page 45)

modern pest management principles and theories of population monitoring and dynamics.

Holley said the chapters demonstrating interest in the program so far include Harrah, Agra, Caddo, Madill, Broken Arrow, Erick, Altus, Pawnee, Marlow and Central High.

After the samplings have been taken by the chapters and are sent to the state department of agriculture, the survey results are sent to a national data base in Fort Collins, Colorado, where it is permanently stored.

Holley said the long-range goal of the program is to gather enough data on the data base to predict when there will be certain outbreaks of insects, weeds and plant diseases. *(Russ Florence)* •••

For Back Work

As a community service project members of the East Bernard, Texas, FFA agriculture co-op class built six backboards for the local emergency medical service.

The completed value of each backboard is approximately $125. Backboards are used in emergency medical procedures to prevent further injury to injured persons suspected of having spinal injuries.

The class gained valuable woodworking experience and was pleased to help their community by saving the East Bernard EMS approximately $600. •••

Harvest Story

The Oak Harbor, Ohio, Chapter harvested their soybean crop from the school farm and came up with 920.68 bushels with a 28-bushel per acre average yield. The moisture content of the crop was 16.1 percent.

The soybeans were planted on June 25 and 26 due to tilling and irridrain completion. On November 7 Myron Rauch harvested 33 acres of soybeans for the FFA chapter using an Allis Chalmers Gleaner combine.

Keith Thorbahn plowed 15 acres on the west side of the farm and Larry Heintz and John Grau chisel plowed the 17 acres on the east side of the farm for fall tillage.

Luckey Farmers, Inc. donated the herbicides and application for the weed control for the school farm, along with 5 bushels of soybean seed. Carl Miller also donated equipment and chemicals for weed control.

The chapter is planning for the 1985-86 crop years. They have set up a committee to study the plots and varieties

National Officer Action Update

The new National FFA Officers spent two weeks at the National Center in December preparing for their year of service. They met staff members and acquainted themselves with the fiscal and programatic operations. They had official photos taken and conducted public relations sessions including a visit with President Reagan at the White House (and attended the lighting of the nation's Christmas tree). Also they have been given specific training on public speaking, group dynamics, time management, travel tips and planning. •••

to be used on the school farm and invited input from the community. *(Gary Chambers, Reporter)* •••

Rodeo Roundup

On October 13, at the Volusia County fairgrounds, the Deland, Florida, Senior FFA advisory committee sponsored the third annual fall roundup.

The roundup is a junior rodeo for participants 18 and under. It gives young people a chance to try their best at many different rodeo events.

The Deland area FFA chapters helped put this major event together. Admission was $5 at the gate which included a hot barbeque dinner.

Chris Creese and Mike O'Quinn had the winning time with this steer.

The rodeo was a great success with over 1,500 people attending. The proceeds will go toward the leadership training center on Lake Pierce in Polk County, Florida. *(Shannon Allman, Reporter)* •••

Chapter Invites Whole Nation

The seventh annual parliamentary law contest was again held in Carthage, Missouri, November 6 and 7, 1984, and proved to be extremely successful. State winning teams from ten states competed.

Tuesday, November 6, was reserved primarily for acquainting participants with rules, judges and host families. Contest demonstrations began at 2:30 p.m. on Tuesday and are similar to a chapter meeting and the strictest parliamentary law is observed. The final round of demonstrations began at 8 a.m. on Wednesday, November 7.

The national invitational contest started from a need felt by members of the Carthage Chapter since national FFA was not providing a contest for state teams. The contest has steadily gained popularity among chapters from 20 states and 75 chapters have participated over the past six years.

The 1984 contest winner was Waverly, Nebraska. Other gold winners were Carthage, Missouri, and Woodbury, Tennessee. Silver awards were Clay Center, Kansas; Colton, Washington; and Woodburn, Indiana. Bronze awards were Coggon, Iowa; Buckeye, Louisiana; Lennox, South Dakota; and Annville, Pennsylvania. •••

Cheerful Conference

The Virginia Tech Agricultural Education Society held its fourth annual leadership conference for FFA members across the state on October 12-13, 1984, at the Squires Student Center on the Virginia Tech campus.

The conference was designed to help new members in the FFA get acquainted with the organization and many of its opportunities. Since its start in 1981, the conference has experienced tremendous growth. In 1981, 366 members from 35 chapters attended the conference; this year, 603 members representing 50 chapters were in attendance.

Members participating in the conference had the opportunity to attend classes with topics ranging from the history of the FFA to goal setting. Classes were conducted by agricultural education majors at Virginia Tech with assistance from current state officers in the Virginia Association. Participants also saw a presentation from National FFA President Ron Wineinger.

An added feature to the FFA members' visit to the Virginia Tech campus was a performance by the Virginia Tech cheerleaders and the school mascot. Many of the members and advisors at the conference attended the Virginia Tech-Duke game in Lane Stadium the following day. *(John Hillison)* •••

Sunflower Salesmanship

This fall, the Hill City, Kansas, Chapter held a sunflower and sorghum seminar. The seminar followed up on a previous field day held in August. The purpose of the seminar was to inform sunflower growers or interested growers about the harvesting, marketing and storage of sunflowers.

The 140 people boarded buses at the high school at 2 p.m. and traveled to the chapter farm. Everyone was given a half-hour to look at the sunflower test plots, ask questions and talk individually with several seed representatives who were present.

(Continued on Page 48)

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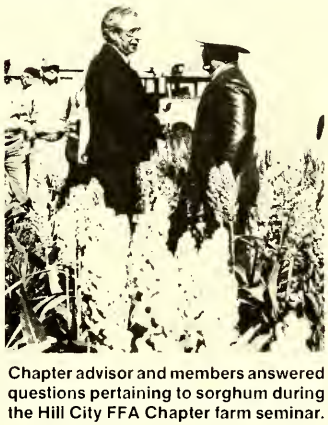
(Pick up ACTION from Page 47)

The next stop was the milo test plots on the chapter farm. Everyone was given information on when the plots were planted and rate of chemical application. Then some time was allowed for them to look more closely at the milo varieties.

An area farmer planted a large sunflower test plot that was totally wiped out by the sunflower head moth. This gave the farmers a chance to ask questions about the sunflower head moth and other sunflower diseases.



Chapter advisor and members answered questions pertaining to sorghum during the Hill City FFA Chapter farm seminar.

An irrigated field of sunflowers was the next stop on the tour. These irrigated sunflowers presented an opportunity for farmers to compare dryland and irrigated sunflowers.

At 6 p.m. everyone returned to the high school for a hamburger feed in the cafeteria. The meal was prepared by the Hill City FFA Alumni.

After the meal everyone reconvened in the auditorium for the final session. The session started with the chapter officers conducting the opening ceremonies. The night session gave specialized people a chance to talk about the different aspects of sunflowers. It also gave everyone another chance to ask any final questions.

The featured speakers included Don Zimbleman, chairman of the National Sunflower Association and a sunflower grower; Mark Beringer, sales agronomist for Triumph Seed Company; Perry Church, marketing specialist for Cargill Seed; Ed Hiza, longtime grower from eastern Colorado; Jerry Gano, Graham County sunflower grower; and Jose Escamilla, representing the National Sunflower Association in its sales efforts to the Mexican sunflower seed and oil buying industry.

The closing ceremonies were performed by the chapter officers to mark the end of the seminar. *(Rick Huddlestun, Reporter)* •••

On The Beach

More than six miles of Florida beaches and dunes have been painstakingly preserved over the last four years by the Bunnell, Florida, Chapter who won the 1984 first-place award in the Building Our American Communities (BOAC) program.

The award was presented for the chapter's efforts to preserve coastal resources, revitalize local tourism and improve recreational facilities.

The FFA's BOAC projects generated an increase in tourism, which significantly boosted the economy of Flagler County, according to the chapter's FFA advisor Jim Galvin.

The Bunnell FFA's BOAC activities involved more than 11,000 citizens and 500 organizations. A thousand discarded Christmas trees were collected and buried in eroded dune areas on 6.8 miles of city-owned beaches along State Road A1A, a major coastal highway. The trees reduced erosion by 90 percent and stabilized the dunes.

Chapter members also grew 500,000 salt-tolerant plants and planted them on the dunes to control erosion. That project saved county taxpayers $4,000 that otherwise would have been spent purchasing plants from a commercial grower. The group also reforested ten acres of coastal timberland by planting more than 6,000 trees.

The FFA chapter also assisted in the construction of 39 walkways with benches over the dunes. That work saved the city an estimated $10,000 in services.

Recreational projects were also part of the chapter's BOAC programs. The youth cleared land for two five-acre parks, established grass, put in park benches and walks, and assembled and installed playground equipment purchased with a federal grant. The chapter also landscaped a senior citizens' community center.

The Bunnell FFA Chapter was one of four regional BOAC finalists.

The central regional finalist was the FFA chapter in Mankato, Kansas, which developed a youth center and studied the economic impact of hunting season on its rural community.

The eastern regional finalist was the Marion County Chapter in Farmington, West Virginia, which contributed to its community's economy by restoring a historic round barn as an agricultural museum, converting an old schoolhouse into a museum, and promoting tourism.

The western regional winner was the Elma, Washington, Chapter, which carried out projects to enhance Washington's salmon population to lengthen the commercial and sport fishing season, and devoted 12,000 hours to a reforestation program.

BOAC is sponsored by R. J. Reynolds Industries, Inc. as a special project of the National FFA Foundation. •••

Dear Editor:

The Children's Hospital in Columbus, Ohio, is fortunate to have a terrific relationship with the Ohio FFA.

The relationship between the two organizations started with the 1977 school year when the state officers decided to adopt an all state project. The state projects over the years have raised over $59,000 for different areas of the hospital. This past school year, 1983-84, the amount of contribution reached an all-time high of $15,623. I think you can tell by the numbers that the support of the Ohio FFA state project is growing stronger every year.

A brief summary of each year's area of support and how much money was raised statewide follows. In the first year of support, 1977-78, FFA contributions of $4,000 purchased two neonatal monitoring units for the transport team. In 1978-79, a gift from Ohio FFA was $6,930, providing a patient room in the new tower area. A plaque displayed outside the door recognizes this gift.

Then $13,890 was raised to renovate the surgery lobby during the school years 1979-81. The genetics laboratory benefited from the Ohio FFA members in 1981-82 when their $10,716 helped purchase a microscope camera unit. The purchase of a transcutaneous portable oxygen monitor was made possible through the 1982-83 state project with the $8,800 donated.

As mentioned, this past year the Ohio FFA almost doubled their contributions with a record gift of $15,623. Four chapters' gifts were $1,000 or more. Part of the money, $8,000, was used to purchase a portable cardiac heart monitor with the balance being used to help offset our $6 million of unfunded care we incur each year.

As you can tell by the enclosed pictures, chapters raise money in a variety of ways. A majority of the chapters give outright donations to the hospital or a percentage of proceeds from their annual fruit sale. Other chapters tackle big special money-raising projects such as skate-a-thons, barbeques, donkey basketball games and even sexy legs contests!

The possibilities are endless.

To reward the chapters who have raised the most money and the most money per member, we present them with a plaque and invite them to participate in "Take Over Day" at Children's Hospital. The day consists of a tour, lunch and working in a specific area of interest in the afternoon. It is our way of saying thank you and at the same time showing them how their money is being used.

On August 2, we hosted the Ohio FFA state officers and Executive Secretary Robin Hovis, to present them with a proposal for support for the 1984-85 school year. For the third consecutive year they decided to financially support our transport team. Since we transport patients from all over the state of Ohio, the officers believe it is the best device for members to benefit from their contributions.

We at Children's Hospital are very excited about the upcoming school year, continuing our work with the Ohio FFA. Children's Hospital in Columbus is doing big things for little people, but it would not be possible without help of our faithful friends and family, the Ohio FFA members. *(Denise L. Drake, Assistant Director)*

Coloring Questions

The replica of the dinosaur known as a Thachodon (an Ornithopod also known as a "duck bill") above the petrified wood star drinking fountain on the Somervell County Courthouse Square in Glen Rose, Texas, was in a dilapidated condition.

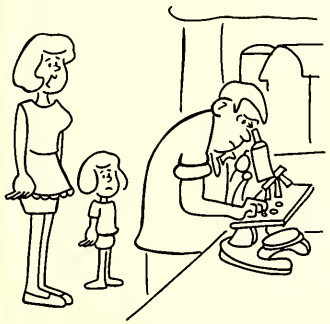
It had received its last coat of paint some 25 years ago. The replica was almost faded out with two rusty feet, one of which almost rotted off.

It was decided about this summer that the dinosaur replica (being the emblem of Somervell County) must have a "face-lift" before the bluegrass jamboree was held at the park.

In doing research from an old pamphlet entitled "Sinclair and the Exciting World of Dinosaurs," the FFA members quickly surmised that no one knew exactly what color a dinosaur was that existed so long ago.

Well, the new creation in painting done by Shane Tipton and the other vo-ag students, gives a modern look to this ancient creature, which combines the distinctive features of a reptile, bird and giant lizards which roamed the earth during the Cretaceous period.

The local FFA chapter consented to repair the replica and paint it. *(W. B. Cowan, Jr., former advisor and* Cleburne Times-Review *correspondent)* •••



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The Joke Page

A college football coach was faced with the possibility that his star player might not be declared academically eligible, so he pleaded with the math professor not to flunk the kid. "*Tell you what, coach,*" said the professor, "*I'll ask him a question in your presence. If he gets it right, I'll pass him.*"

The athlete was called in and the professor asked, "*What's two and two?*"

"*Four,*" replied the player.

Frantically the coach cried, "*Give him another chance. Give him another chance!*"

Bradley Bottoms
Crossville, Tennessee

Q: How did McDonald celebrate his engagement to Wendy?

A: With an onion ring.

Dewayne Stripling
Kennedy, Alabama

"Well—did you hit anything today?"

A city slicker was visiting his cows in the country. As he was walking in the cow yard, he found himself knee deep in manure. He looked down and stated, "*Oh, my goodness, I'm melting.*"

Jim Otto
Ivanhoe, Minnesota

Q: Why did the turtle cross the road?

A: To get to the "Shell" station.

Mike Reilly
Cascade, Wisconsin

Q: Why do pigs make good sea divers?

A: Because they all have snorkles.

Ed Keppel
Zephyrhills, Florida

There were three wild animals sitting around in the forest. They were fighting over who was the most feared of all the forest creatures. One was a hawk. He felt he was feared most because of his flying abilities and the way he attacked his prey from the sky. Another was a lion. Because he was so strong and ferocious, he felt he was most feared. Last was a skunk. He knew he wasn't strong nor a good hunter, but he felt that his smell made him most feared of all. Just then a huge bear charged out of the bushes and ate them all—hawk, lion and stinker!

Dave Berger
Clear Lake, Wisconsin

Q: What do Eskimos call their cows?

A: Eskimoos

Julie Finkel
Philadelphia, Pennsylvania

"*Is your house warm?*" Mrs. Wright asked her neighbor Mrs. King.

"*It should be,*" Mrs. King replied. "*The painters gave it three coats of paint last week.*"

Lori Knight
Auburn, Alabama

Way back in the hills, a long time ago, an old hillbilly heard that his neighbor got a TV. Well, nobody in that area had even seen a television before. So the old hillbilly jumped on his mule and rode over there.

Well, it just happened that his neighbor's cousin from the big city had stopped by for a visit and left his car, a Ford A Model, running outside. When the hick and his mule came up into the yard the mule became nervous and reared up. Then the angry hillbilly shouted, "*Why you ignorant ol' mule, ain't you ever seen a TV afore?*"

Greg Norris
Bokoshe, Oklahoma

Q: Why did the chicken cross the street?

A: There was a chick on the other side.

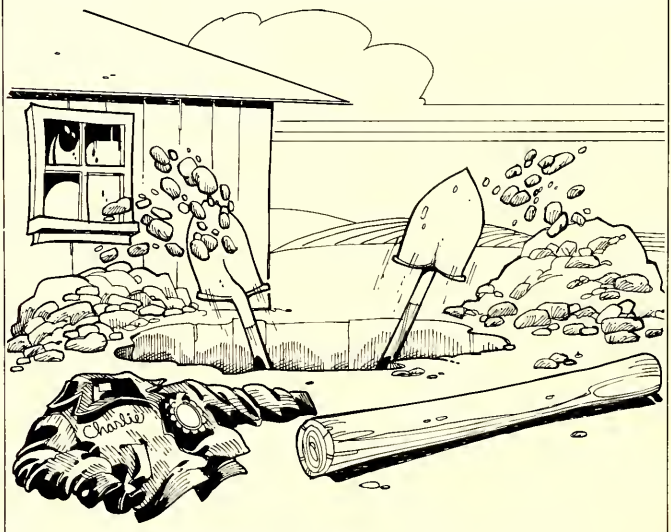
Chad Cambre
Laplace, Louisiana

Q: Do you know what you call hydraulic emasculators?

A: Power steering.

David Lichti
Huntsville, Arkansas

Charlie, the Greenhand



"Stop griping! The corner post in a fence must be very solid."

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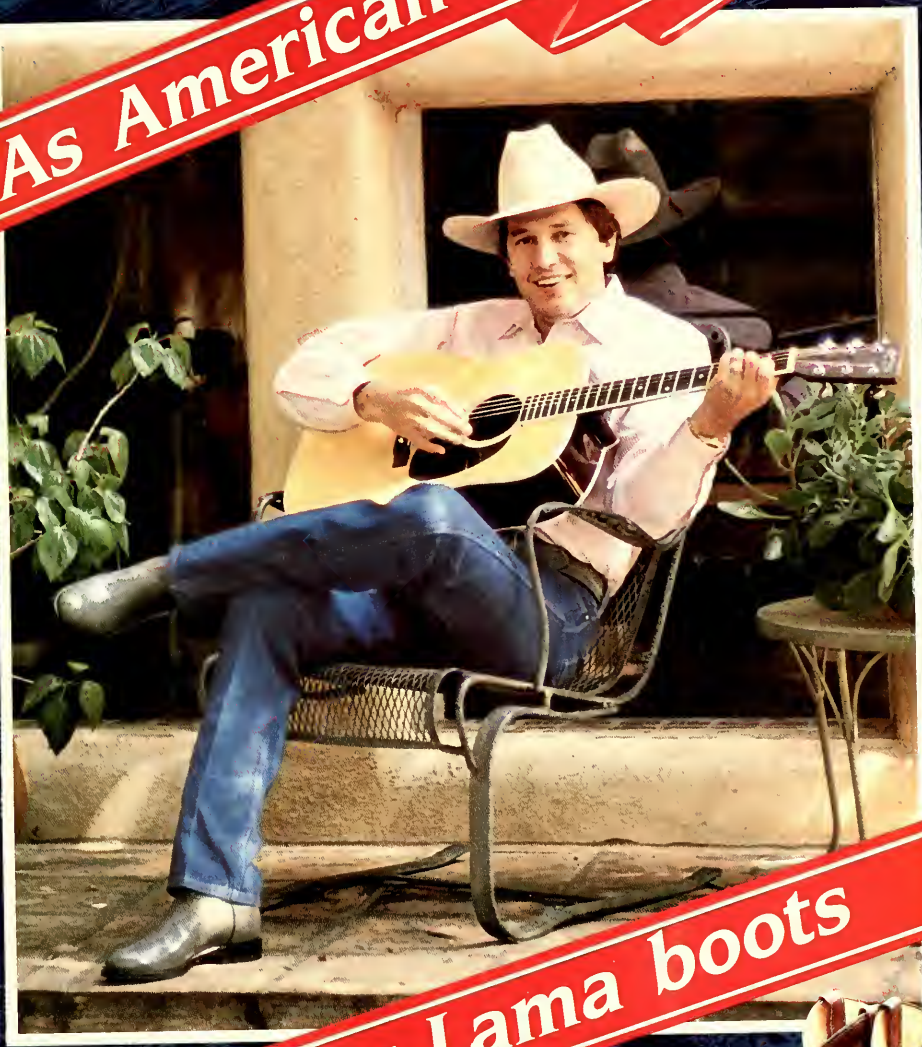
As American



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